# THE £1000 HOUSE

*Randal Phillips*

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*By*

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# PREFACE

AS a definite sum forms part of the title of this book, it is necessary first to make clear what this is intended to cover. Briefly, the aim has been to illustrate a number of houses which have cost not more than £1,000 to build. That means the builder's contract, including such structural items as grates, bath, sink, etc. The architect's fees are additional to this sum, and so is the cost of the site, its fencing and lay-out. All the houses illustrated in this book have been built since the War, and they have all been designed by architects. With a few exceptions, they have cost less than £1,000, and some have been built for less than £700.

There is here abundant proof that architect-designed houses can be achieved at a cost no greater than that of speculative builders' houses. The latter are notoriously bad in design, and up and down the country are to be seen examples that are as innumerable as they are deplorable. It is not suggested that every house shown in this book is a perfect specimen, but the series as a whole does attain a good standard of design. The planning, too, is markedly better than that seen in houses that have been put up by men who have had no proper training.

In the case of small houses like those here dealt with, the question of cost has to be considered with the utmost care, since the available funds are so limited. But at the outset the idea must be dispelled that houses can be duplicated like motor-cars. A car is a factory product, made in one place under definite organised conditions. Consequently, it is possible to determine a fixed price at which it can be supplied. But with houses the case is very different. All sorts of local influences affect the cost of building. Wages are one factor. The building trades unions have established certain standard rates of pay, but these are not the same all over the country. Bricklayers in the London district, for example, receive 4d. per hour more than they do in Norfolk, Somerset and Derbyshire, and there is a similar difference in regard to other trades. Labour makes up a goodly part of the expenditure on

building, and it is obvious therefore that a house which has cost, say, £850 in one district, may cost very much more in another. The available supplies of material are another deciding factor. When supplies are close to hand, and there is little haulage, this appreciably affects the cost.

Again, there is the all-important item of the builder himself, and his circumstances. He may be a thoroughly competent man, but in a small way of business, without any of the overhead charges that form part of the expenses of a firm. This small man, therefore, is likely to submit an estimate at the lowest possible figure. Or he may be prepared to take on the building of a house at comparatively little profit to himself because he has no other work on hand and wishes to keep his men together. All of which goes to show that the notion of duplicating houses in different parts of the country at the same price must be abandoned.

Nevertheless, the prices given for building the houses which are shown in this book do serve as a very good guide as to what is attainable to-day. Building at the present time is still about twice as costly as it was in the years before the War, but there has been a substantial reduction since 1921, when prices reached their peak, and, so far as one can judge, there is more likelihood of a reduction than a rise in the immediate future.

General considerations as to the planning and construction of the £1,000 house are fully dealt with in the introductory chapter by Mr. C. B. Willcocks, F.R.I.B.A., an architect who has had much practical experience in economical building; and there is a chapter at the end of the book dealing with items of equipment. So there is no need in this Preface to go into these matters. But there is one point in connection with planning which I would especially stress. It concerns the relative uses of the sitting-room, dining-room and kitchen.

Conditions of occupancy, even in a small house, are widely different. In one case there may be children growing up; in another there may only be a man and his wife; and in another case a widow with grown-up daughters may be concerned.

Allied to this differing composition of the household is the question of service. Is there to be a maid living in? Is it to be a servantless house? Or is it to be a house run with the aid of a

daily maid ? In the modest circumstances which a £1,000 house ordinarily suggests, I think it may be taken that there is more likely to be a daily maid than a maid living in. But whatever the arrangement contemplated, this should be borne in mind from the start. There is neither money nor space to spare in a small house like that with which this book deals, and it is more than foolish to build such a house without fully considering how the rooms are actually going to be used. It is a fact that in middle-class houses there is often a " drawing-room " which is just as much out of use as the " parlour " of the cottage. If a dining-room and a sitting-room are provided, then it should only be done on the clear understanding that both are to serve as such every day of the week. If the house is servantless, or there is only a daily maid, it will be better to eliminate the dining-room, and to apportion some of its space so as to get a good-sized sitting-room which can be used as a general living-room (with one end arranged especially for convenience at meal-times). An alternative scheme would be to provide an attractive alcove as an annexe to the kitchen (this is quite commonly done in America, where few people can afford servants). In this alcove meals could be taken in complete comfort and with the least possible amount of trouble in service. The sitting-room could then be used solely as a sitting-room. But there should also be a small room to serve as a workroom, or, if there are school-children, as a place where reading or other work can be done in seclusion.

As regards bedrooms, three meet normal requirements in a small house, but in some cases two are sufficient, and in other cases four are wanted. In this book examples are given that cover a variety of needs, and, since more than fifty houses are illustrated, there should be abundant choice for everyone. But, in this matter of house design and arrangement, individual wishes and circumstances exercise a surprising influence; so much so, indeed, that even with so diverse a selection as is here presented, it is more than likely that no single example will *completely* satisfy any particular person. He (or she) may find that such and such a house is just right—except for something. If it is true that the faces of no two people are exactly alike, it is certainly a fact that the houses they want are equally dissimilar. The difference

may be small or it may be large, but it is sure to exist. Nevertheless, the examples shown in this book offer not only a definite basis for any stated set of requirements, but also they show a great variety of treatments in working out the problem. And to see what others have actually accomplished, under present-day conditions, is an advantage of inestimable value. R. P.

LIVING-ROOM FIREPLACE IN HOUSE AT PRESTBURY (*page* 116).

*The walls are distempered light biscuit colour. The fireplace surround is of small French tiles with a light blue and orange pattern on a white ground.*

# INTRODUCTION

BEFORE discussing the house itself, the site should first of all be carefully considered, as it will often very much affect the cost of the building. For reasons of economy the actual site of the house should be as level as possible, to save the extra work which is involved by foundations on sloping ground; and it should have a good subsoil—gravel for preference, which will not necessitate extra deep foundations such as are required on clay.

If the house is to be connected to town drains, water, electric and gas mains, the distance it is set back from the main road, and the consequent lengths of branch services, must also be taken into account, as these will have a bearing on the cost.

With regard to aspect, a south-west outlook is generally preferred, with, if possible, a south-east aspect for the dining-room and some of the bedrooms.

If a site can be obtained on which the garden falls gently to the south-west, overlooked by the chief room, the entrance front being on the north-east, this will give opportunities for an interesting lay-out.

Nearly always it is found that some feature of the site or outlook will influence the position of the house and the position of its principal rooms. For this reason plans designed for one site are seldom satisfactory if used on another of different aspect.

## The Question of Accommodation

The accommodation that can be provided will, to some extent, depend on the fittings and finishings required. For instance, if a tiled bathroom, oak floors in some of the rooms, or expensive decorations are regarded as essential, their cost must be saved in other directions—generally in the size of the house. The accommodation required, however, will probably consist of a hall, two sitting-rooms, three or four bedrooms, the usual offices, and often a garage.

The hall (protected, if possible, by an external porch) should for preference be square or oblong, with space for a small table and for hanging coats, if a coat cupboard cannot be arranged. Passages on the ground floor should be avoided. The stairs should be planned so that the first-floor landing is not visible from the front door, a much more interesting impression being given to a visitor if the whole interior of the house is not apparently exposed when the front door is opened.

Of the sitting-rooms it will be found best for most purposes to make one room, generally the living-room, as large as possible, and to make the dining-room, which is often little used except for meals, only as large as is actually required for seating about six people comfortably around the table, after allowing space for a sideboard, etc.—say a room about 13 feet by 11 feet.

The kitchen offices require very careful planning. In a house of this size not more than one servant is likely to be kept, and often she may not be available. The whole of the service arrangements should therefore be as efficient, compact and labour-saving as possible. The best arrangement is probably to insert a small service pantry between the hall and kitchen, with, if possible, a door between the pantry and the dining-room. The advantage of this arrangement is that the pantry acts as a ventilated lobby, shutting off the smells of cooking and the noises of the kitchen from the rest of the house. One sink in this service pantry, with two good draining-boards, will generally be found quite sufficient, and will save the cost of an extra scullery sink with its water and drainage connections. In the pantry should be a china cupboard about 4 feet 6 inches wide, with glazed sliding doors to the upper cupboards, a table-top between the upper and lower cupboards, and two drawers under. The pantry may, however, have to be omitted in favour of other accommodation, when provision must be made for the china in the kitchen.

The kitchen, the workshop of the house, might be about 12 feet by 10 feet. Its planning and fittings will, to some extent, depend on the cooking apparatus used. A gas or electric cooker will generally be found the best arrangement. Alternatively, an up-to-date small coal range, preferably with a white glazed tile surround, or one of the modern oil cookers, will be found satis-

factory. The hot water will best be heated by a small open-fire domestic boiler, which will also warm the kitchen, and on which a little simple cooking can be done.

The window should not be too high, and it should have a good outlook, as the kitchen will be the maid's sitting-room, for which reason the doors should be arranged to give a comfortable place for a chair and table out of cross-draughts.

A service hatch with double doors could be arranged between the kitchen and dining-room, if there is no pantry.

Opening off the kitchen should be a small place for cleaning boots and knives, and from this should lead the back porch, giving access (if possible under cover) to the maid's lavatory and the fuel store.

On the first floor as little space as possible should be taken up by the landing and passages.

The bathroom and lavatory should, preferably, be kept separate. A good heated linen cupboard, and, if possible, a box cupboard are very desirable. Care should be taken to keep the sink and bath, etc., grouped together over one another, if this is practicable, as all plumbing is expensive. Considerable economies can be made both in the plumbing and drainage connections by paying special attention to this matter.

If three bedrooms only are required, the problem will be simpler than if four are necessary, though this number can be obtained by careful planning.

To obtain the suggested accommodation conveniently arranged, with rooms of not too small a size, will necessitate compact planning and an economical specification. These, in fact, are the essentials in the construction of such a house if it is to be built for the stipulated sum.

## Plan and Elevations

For small houses of the kind under consideration, an oblong or **L**-shaped plan is generally found to be the most economical. Outbuildings should be avoided.

With regard to the elevations, these most often are either of the type with low eaves and gables or the more formal type with level eaves and hipped ends. There is actually little difference in the cost of these two, the expense of the extra roof work in

the first type being about equal to the extra brickwork necessitated by the higher eaves in the second type.

The type of elevation should, however, be governed to a considerable extent by the site and surroundings, the house being designed to be at home in its setting.

As regards the general outline of the house, it should be borne in mind that every corner and angle of the building has to be plumbed, so involving extra cost. Bay windows are always more expensive than plain windows, and circular work of any kind is very much more costly than square.

A generally satisfactory appearance should be obtained by good proportions and careful grouping of the doors and windows, not by applying ornament in an attempt to give the house the character of any special style. Much satisfactory modern work is now being done of a simple direct type very suitable for the kind of house under consideration.

### Materials

In a brick district it is still hard to find a more economical satisfactory substitute. It is essential, however, that the facing bricks, if left exposed, should be of good colour and texture. They should preferably be of a dark mottled tone, and pointed with a rough buff joint. If good facing bricks cannot be obtained, bricks of less satisfactory appearance can be used and colour-washed or rough-cast, often with very pleasing results. From the economic viewpoint, however, the brick-faced house will be found the cheapest in the long run, as good rough-cast is somewhat expensive, and colour-wash has to be renewed occasionally.

Timber-framed houses covered with weatherboard, if properly constructed with felt under the boarding, are about 6 per cent. cheaper than brick houses, the saving in cost being only on the external walls. If kept in good repair their life should be very considerable, but owing to their not being so lasting as houses with brick or stone walls there is little object in their construction when more permanent materials are available.

When considering the floors it will be found, if there is no objection to the ground floor being kept at a low level, that a solid floor is often more economical than a hollow one. If the solid

floor is covered with boarding, or wood blocks, however, care must be taken not to cover it all over with linoleum, or dry rot may result. A more satisfactory covering for such floors is tiles or a good patent flooring.

Another way in which it is often possible to reduce the height, and consequently the cost, of a house, and thereby generally to improve its appearance, is to use beams to carry shallow first-floor joists instead of the more usual 7 in. or 9 in. deep joists, so enabling one or two courses of brickwork to be saved around the building.

For the bathroom floor, linoleum or cork carpet is the cheapest satisfactory covering. To prevent the moisture which runs down the walls from getting into the joint between the linoleum and the skirting, it is a good plan to fix a small splayed fillet all round the room under the linoleum to raise its edge, and to fix a somewhat similar fillet on to the skirting over the linoleum, thereby diverting any water out on to the linoleum.

For windows, the modern standard steel windows are hard to beat if economical casements are required. The standardised sizes are of good proportions, and when used in wood frames with mullions the result is very satisfactory. For the internal window sills, red quarries form a very good finish, and are not liable to be marked by damp flower-pots, etc., as are painted or stained window boards.

Internally, economy can be effected by using ready-made doors. A disadvantage, however, of some of these is that the height is always 4 feet more than the width, a door 2 feet 6 inches wide being 6 feet 6 inches high, and a door 2 feet 10 inches wide being 6 feet 10 inches high, etc., which results in a restless appearance when doors of different widths adjoin. Some of the big English joinery firms, however, now make special doors for one or more houses to required widths and heights for very little more than the cost of good-quality imported doors, which enables this difficulty to be overcome.

With regard to the internal finish of the walls, etc., plaster finished to a rough buff surface with a wood float is cheaper than ordinary plaster distempered, and forms a good background for pictures. It also has the advantage of requiring no periodical redecoration, so being a lasting economy.

The ceilings can be treated in the same way with satisfactory results.

The internal woodwork will look well if stained with wood preservative or black japan thinned with turps, except in the bathroom, and perhaps the kitchen, where the woodwork is better painted.

In the bathroom, if the walls are covered with white tiles, interest can be added by the introduction of two or three hand-painted picture tiles, such as can now be obtained very cheaply for this purpose. A more economical way to finish the bathroom walls is to paint them, the wall behind the bath only perhaps being tiled.

### General Conclusions

From the foregoing it will be realised that too much thought and consideration cannot be given to the planning, construction and general finish of the house, as every cubic foot of space and fitting has to be paid for. To obtain the best results it is very desirable to employ a competent architect who will pay special attention to the numerous details that have to be continually watched. Such an architect would prepare a much more convenient and economical plan than an inexperienced designer, and by skilful planning and choice of material he would often more than save the amount of his fees. His employment will therefore be an economy instead of an unnecessary expense, as is sometimes thought to be the case. In addition, the building owner will have the satisfaction of knowing that the erection of the house has been properly supervised and that good materials have been used.

Another factor of the greatest importance in the erection of a small house is the builder. When tenders are received it will frequently be found that there is an extraordinary difference between the highest and lowest estimates. The difference is due to many causes. Often, however, it will be found that a small builder who will work on the job himself, and who has small establishment charges, can carry out the work at considerably less cost than a contractor whose works are organised more for carrying out big contracts.

C. B. WILLCOCKS, F.R.I.B.A.

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## HOUSE AT RUISLIP, MIDDLESEX

(FIGS. 1 TO 4)

*Edwin Gunn, A.R.I.B.A., Architect*

IN general form this house had to be almost square, but a low effect was desired. A manner of roofing was therefore adopted to contribute to this effect, by length of ridge and low eaves, with run-downs over the loggia, porch and stairs.

The house is built of brick, cement fine-cast on the ground floor, with purple-brown brickwork for the porch. The upper storey is tile-hung on concrete cavity blocks, and the roof is covered with tiles. The windows are Crittall's cottage casements, with lead glazing in wood frames, the internal sills being formed of quarry tiles. The upper floor has 5 in. by 2 in. joists on 7 in.

FIG. 1.—GARDEN FRONT.

by 5 in. oak beams (dotted on the ground-floor plan). All fireplaces are formed of 2-inch purple-brown bricks, with hearths and kerbs similar.

On reference to the plans it will be seen that the living-room (20 feet by 15 feet) extends from back to front, and has a pair of French doors opening out on to the loggia. The dining-room

FIG. 2.—LIVING-ROOM.

and the kitchen are of reasonable size (the dining-room being 15 feet by 12 feet) and so arranged that service is convenient. Owing to limitations of space, it is not possible to obtain a photograph of the staircase, but actually, as seen from the hall, it is effective and well lighted by the window on the half-landing and the dormer over the first floor. Upstairs, three bedrooms are provided, with bathroom, linen cupboard and w.c., and the slope of the roof has been utilised for a dark-room and a storage place for boxes. This house was built in 1924-5 at a cost of just over £1,000.

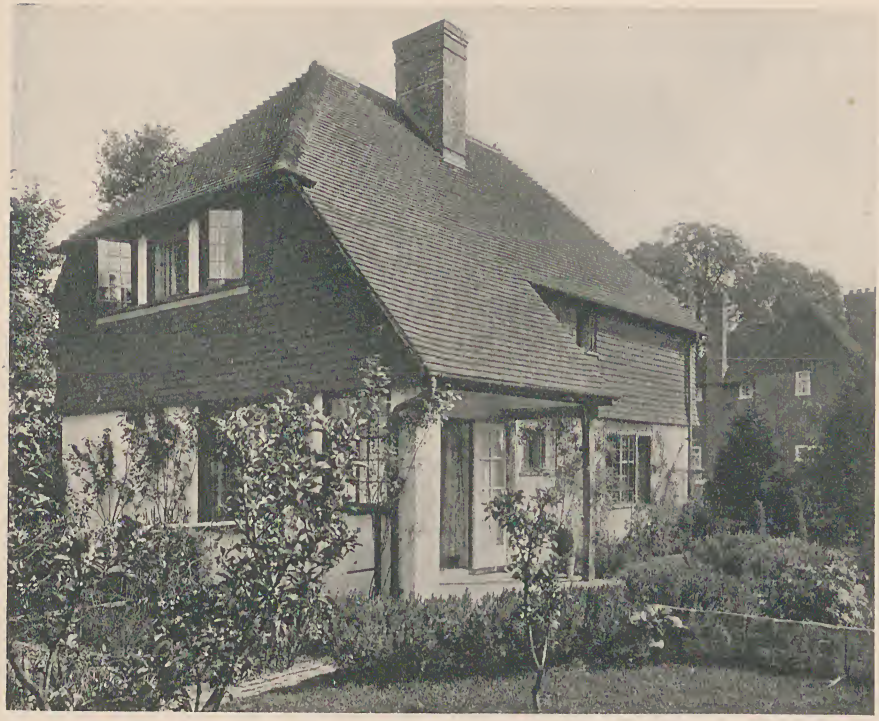


FIG. 3.—VIEW FROM WEST, SHOWING LOGGIA.

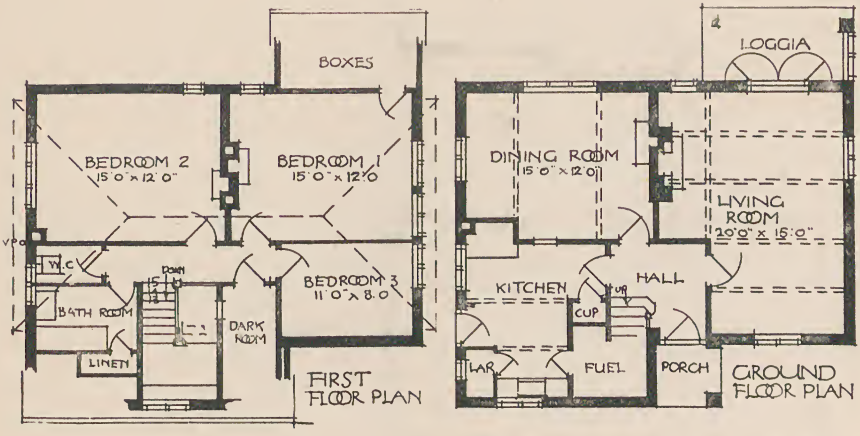



FIG. 4.—GROUND- AND FIRST-FLOOR PLANS.

HOUSE AT RUISLIP.

## HOUSE AT WARGRAVE, BERKS.

(Figs. 5 to 8)

*J. D. Hossack, A.R.I.B.A., Architect*

THIS is a very pleasing example of a small house of formal character. The walls are of 9-inch local bricks, plastered externally and finished with a slightly uneven surface, above a tarred plinth. The roof is laid with hand-made tiles.

The plan is oblong, with a slight break forward on the south elevation, and a first-floor projection on the north, carried by brick piers. The hall and staircase are centrally placed, with the sitting-room on one side and the kitchen and scullery on the other. In the hall an interesting feature has been obtained on either side of the entrance doorway, where the two small recesses are filled in with low cupboards, with shelves for china above. This extra width was required by reason of the small bedroom over, and what might have been waste space has thus been turned to useful and decorative purpose.

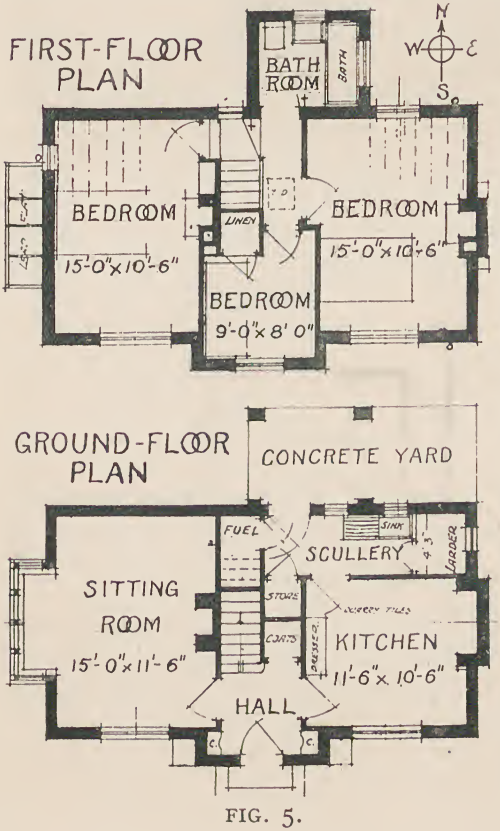



FIG. 5.

The first-floor projection on the north, supported by brick piers, accommodates the bathroom. This projection

FIG. 6.—SOUTH FRONT.

FIG. 7.—VIEW FROM SOUTH-WEST.
HOUSE AT WARGRAVE.

forms an effective shelter outside the scullery in wet weather. At very small cost the scullery could also be increased in size by filling in the openings between these piers, if required.

The sitting-room is 15 feet by 11 feet and has, on the west side, a large square bay window. It is also lighted by a window on the south. Like the hall, it is floored with wood blocks. The kitchen and scullery are floored with quarry tiles. Three bedrooms are provided on the first floor, two of these being large rooms and the other the small bedroom already referred to. Each is lighted by a south window, and the two larger rooms

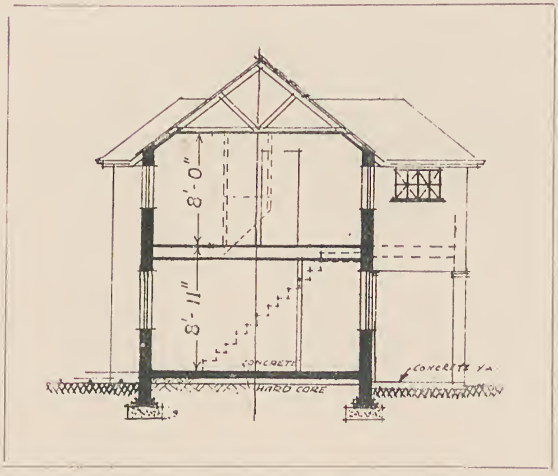



FIG. 8.—CROSS-SECTION.

have fireplaces. In a three-bedroom house, two of a good size and the third quite a small room is often a better arrangement than three rooms of equally restricted dimensions.

The height of the rooms from floor to ceiling is 8 feet downstairs and upstairs. The shortness of roof span allowed the tie-beam to be raised above wall-plate level, and this has resulted in low eaves to the upper-floor rooms.

The house was designed originally to accommodate a gardener and his family, or a middle-class married couple who would be employed in some capacity on the owner's estate. It was built in 1927 at a cost of less than £1,000.

## TWO HOUSES AT BIRCHALL, NEAR LEEK, STAFFS.

(FIGS. 9 TO 11)

*R. T. Longden, F.R.I.B.A., and W. J. Venables, L.R.I.B.A., Architects*

THESE two houses were erected in 1927. They are of restful character, substantial in appearance, and free from the false trappings that disfigure so many of the small houses now being erected all over the country—chiefly the work of builders who have no sense of architectural values.

The house illustrated on this page cost, exclusive of land, exactly £1,000, and an additional £100 was eventually spent on special features. The plan (Fig. 10) is of very simple form, the owner's wishes being to have two reception rooms of good size with a labour-saving kitchen-scullery. Three bedrooms

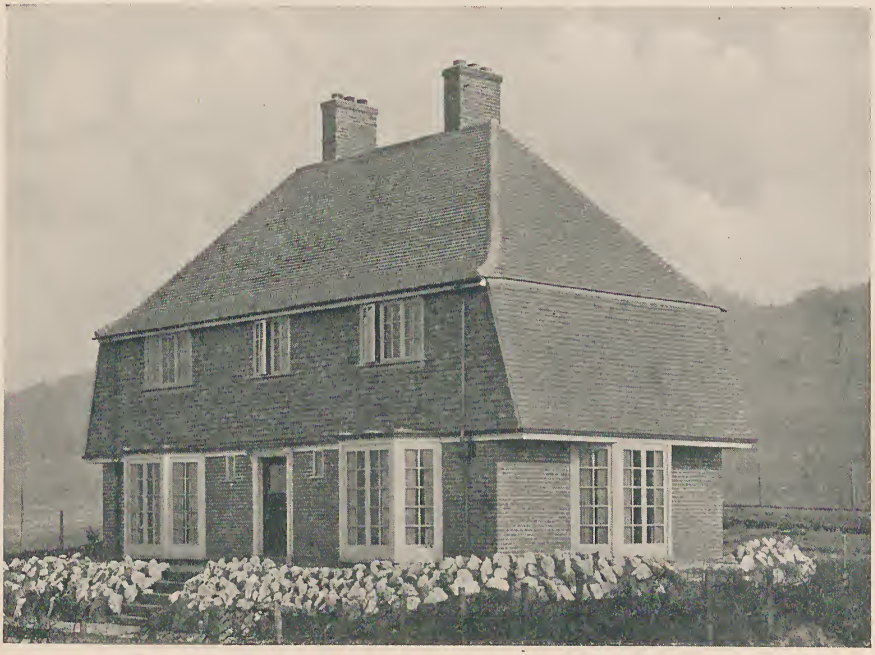


FIG. 9.—ENTRANCE FRONT.

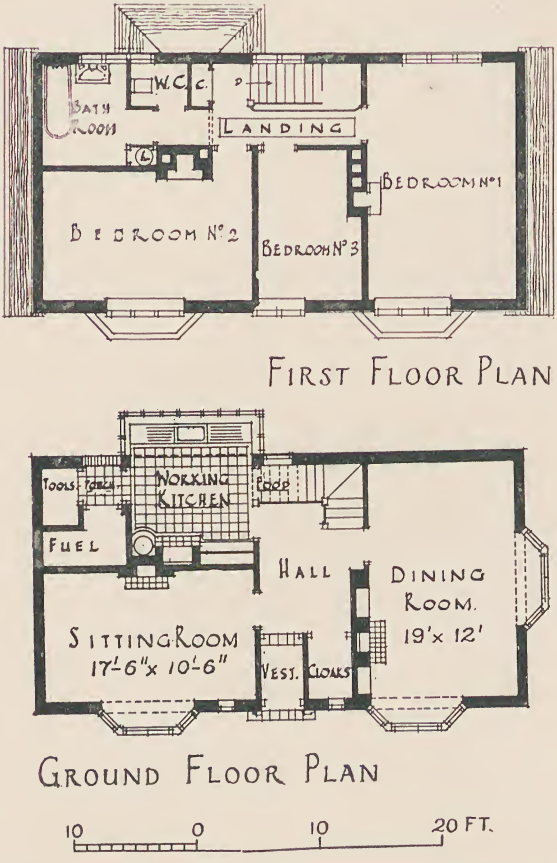



FIG. 10.—PLANS OF HOUSE SHOWN ON PRECEDING PAGE.

are provided on the first floor, two of them being large rooms in what is only a small house, and there is also a good-sized bathroom. It has been possible to divide one of the two bedrooms, as such an alteration was desired later. The house is built of multi-coloured bricks, the upper storey being tile-hung, and the roofs are covered with Hartshill multi-coloured tiles.

The other house at Birchall, shown by the illustrations on the opposite page, is built of similar materials, and the accommodation is similar, though four bedrooms instead of three are provided upstairs. Its cost was slightly more, and the garage was extra.

ENTRANCE FRONT.

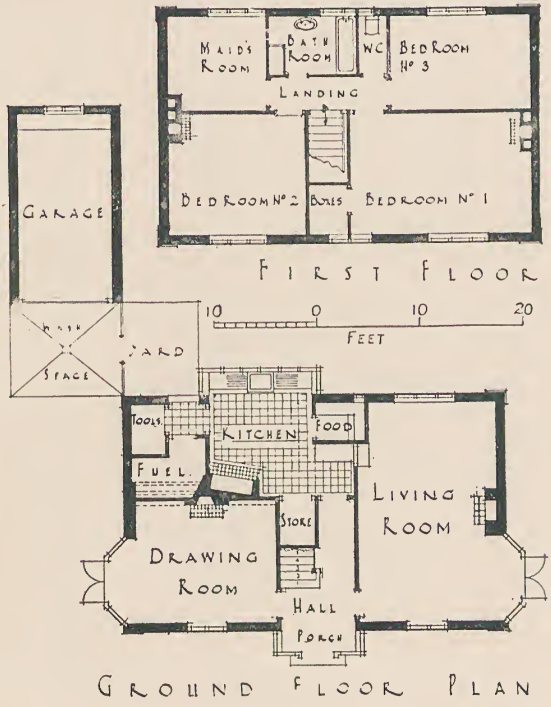



FIG. II.—HOUSE AT BIRCHALL.

## HOUSE AT WHITCHURCH, CARDIFF

(FIGS. 12 AND 13)

*T. Alwyn Lloyd, F.R.I.B.A., Architect*

THIS house was built in 1924 at a cost which the architect says would not exceed £1,000 to-day. Double bay windows are a feature of the front elevation, the windows being wood casements. The house is rough-cast and coloured cream, and the roof is covered with hand-made tiles. There is a well-designed porch of " Colonial " type over the entry, and the hall is centrally placed, with the living-room on one side and the

FIG. 12.—ENTRANCE FRONT.

dining-room on the other. Both rooms have fireplaces, that in the dining-room being set cornerwise to economise space. The kitchen and scullery are schemed at the back, and there is a service hatch opening into a lobby outside the kitchen. Upstairs are three bedrooms and a dressing-room; the latter opens out of the principal

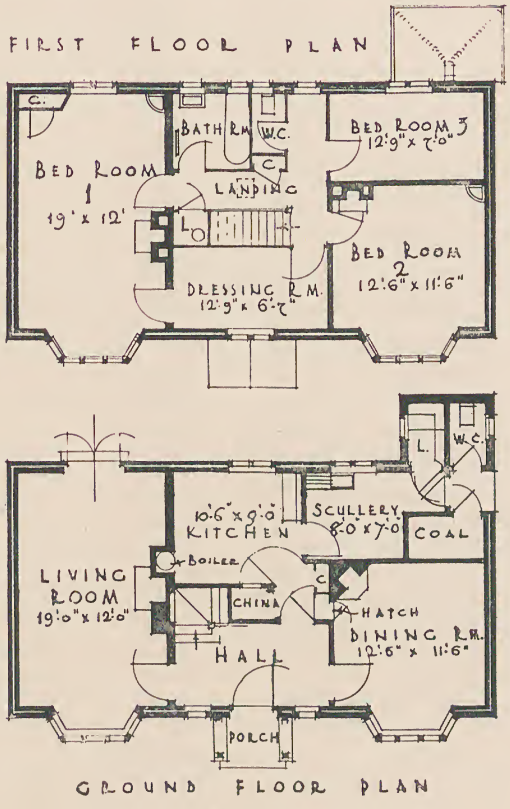



FIG. 13.

bedroom, which comes over the living-room, and is of the same size as that room—19 feet by 12 feet. The dressing-room could, of course, be turned into another bedroom if so desired. The bathroom is placed over the kitchen, and the plumbing in relation to the scullery sink is economical. This is a matter which needs careful consideration, as it must always be remembered that plumbing is an expensive item.

## HOUSE AT ORPINGTON, KENT

(FIGS. 14 TO 20)

*Paul Badcock, A.R.I.B.A., Architect*

THE contract price for this house (built in 1926) was £875, including drainage, yard paving (but not fencing), and the installation of grates, hot-water boiler, and other items of equipment. This is a very satisfactory achievement, for, as the plans show, the house has a reasonably adequate amount of accommodation, and has been carried out in a substantial manner, inside and outside.

The design is based on a symmetrical front, with the dining-room and sitting-room placed on either side of a central hall, from the end of which the staircase rises to the upper floor. There is a recessed porch at the entry.

FIG. 14.—HALL AND STAIRCASE.

The sitting-room is 15 feet 9 inches by 12 feet. It has a coal fireplace set centrally on the outer long wall, and a pair of French doors opening out on to the garden.

The dining-room is 12 feet by 9 feet 9 inches—a rather small room, yet just sufficient for meals in a house of this size. At the back of it comes the kitchen-scullery, 8 feet 6 inches square, with a door opening into it from the hall, and on the other side a door to a tradesmen's lobby. A cupboard and fitment with flap table are placed on the

*The upper illustration shows the house as actually built. Below is a drawing of it with a garage added at one side and the front garden laid out. A plan of this scheme is given on the next page (Fig. 19).*

FIG. 15.

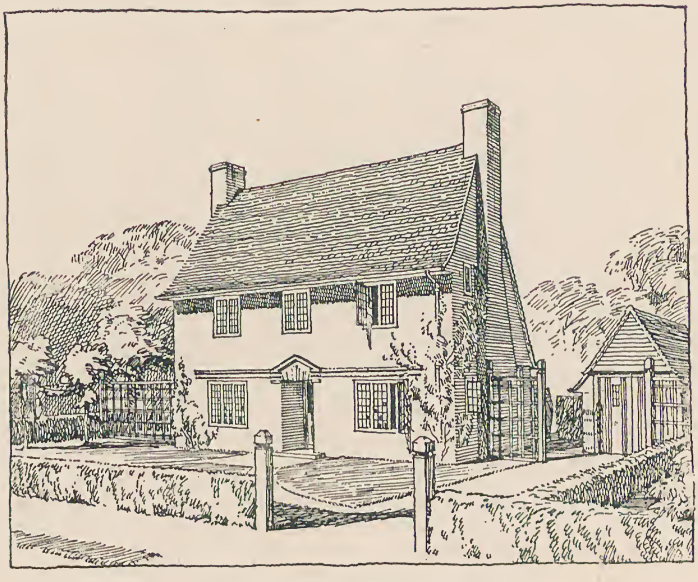


FIG. 16.

HOUSE AT ORPINGTON.

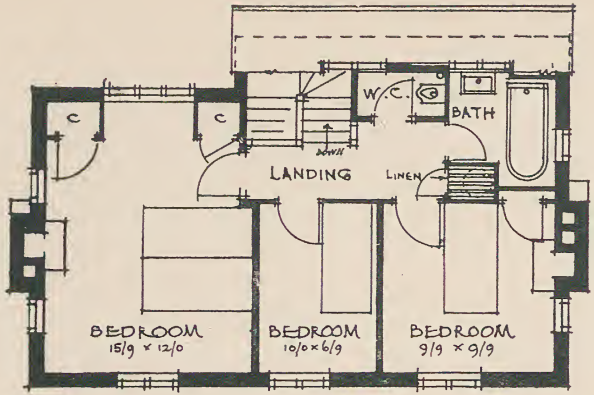



FIG. 18.—FIRST-FLOOR PLAN.

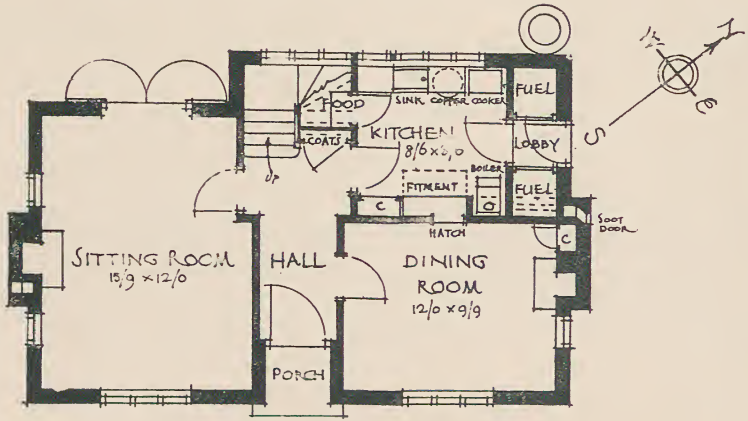



FIG. 17.—GROUND-FLOOR PLAN.

HOUSE AT ORPINGTON.

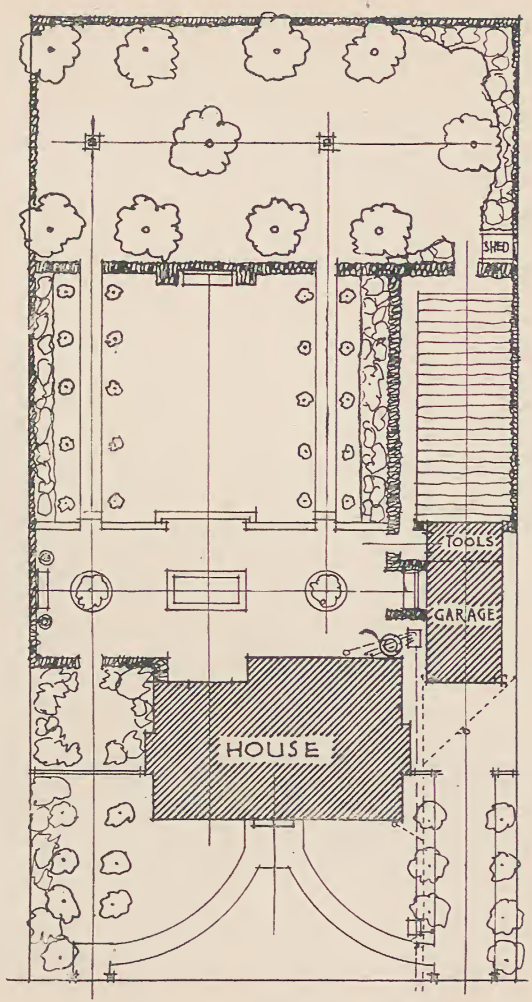



FIG. 19.—PLAN SHOWING HOW THE HOUSE AND GARAGE MIGHT BE ADAPTED TO AN AVERAGE PLOT.

dining-room side, with service hatch in the dividing wall; while on the opposite side, under a window, are a sink having double draining-boards (with a copper installed under one of them) and the gas cooker at the right-hand end. Opening off one corner is a small larder, contrived in the space under the staircase, with louvred opening to the outside, and in another

FIG. 20.—SITTING-ROOM.

corner is a " Kokette " boiler, the tank in connection with which is set in the linen cupboard directly above on the first floor. On either side of the lobby is a fuel store—one for coke, the other for ordinary house coal. The hall and kitchen floors are laid with tiles.

On the first floor are three bedrooms. The largest is 15 feet 9 inches by 12 feet, and has a window at each end and two small windows on either side of the fireplace. The central bedroom is 10 feet by 6 feet 9 inches—a very small room, but just sufficient to take a single bed. The third bedroom is 9 feet 9 inches by

9 feet 9 inches. The bathroom is accommodated at the end of the landing, with the w.c. next to it.

The external walls are 9 inches thick, faced with a reddish-brown brick, and the roof is laid with hand-made tiles of mottled colour, these tiles and the bricks being Kentish. It would be better—though adding to the cost—if the walls were 11-inch hollow brickwork, because, on an exposed site, there is risk of rain driving through a 9-inch solid wall unless it is faced with rough-cast or cement concrete. The window frames are deal, painted white, and fitted with specially-made steel casements and lead glazing.

Fig. 15 shows the actual house as built, but by way of supplement to this, a perspective drawing and a garden plan are here reproduced (Figs. 16 and 19) showing the same house with a garage and tool-house at the side, and a simple lay-out for the plot.

## COTTAGE AT FLITCHAM, NEAR SANDRINGHAM, NORFOLK

(Figs. 21 and 21a)

*Oswald P. Milne, F.R.I.B.A., Architect*

THIS cottage has just been completed for the King on the Sandringham Estate. It was built for an underkeeper at a cost of £618, including the digging of a well, drainage, etc. It is constructed in the local manner, the walls being faced with knapped flints, much flushed up with mortar, with brick for the porch, angles, and window dressings. The roof is of pantiles. The windows are standard iron casements in wood frames. Water supply on the estate is often difficult, and this necessitates restriction in regard to such things as baths and water-closets. As built, therefore, the cottage has no bathroom, though a pump is installed to draw water from the well and deliver it into a tank in the roof: but on the opposite page an alternative plan is given showing how a bathroom could be provided upstairs, by utilising the space occupied by the third very small bedroom.

FIG. 21.—ENTRANCE FRONT.

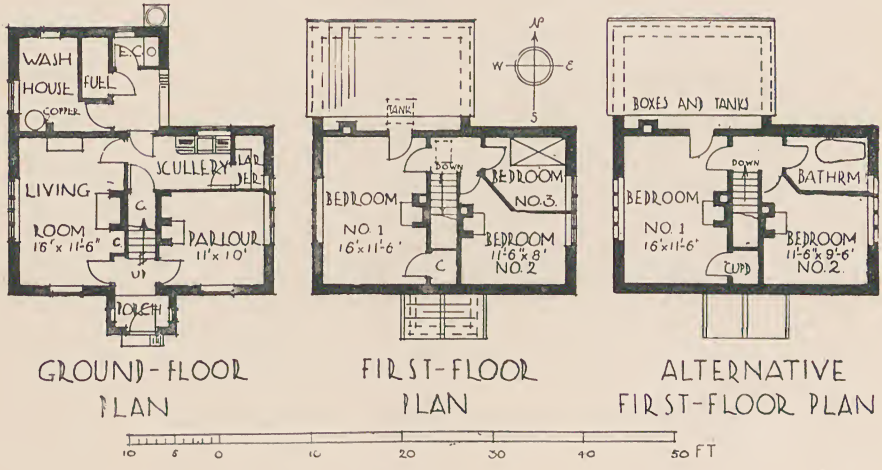



FIG. 21*a*.

## HOUSE AT CUFFLEY, HERTS

(FIGS. 22 AND 23)

*Kieffer and Fleming, Architects*

THIS house was built for two ladies on land which they intended to develop as a fruit and poultry farm. In the particular circumstances there were good reasons for providing a changing-room, with bath and w.c., on the ground floor, having direct access to the garden and fields; but, as explained later, it is possible to alter the plan so as to have the bathroom upstairs. The changing-room occupies the space adjoining the kitchen which is usually taken up by the scullery, while the floor area usually devoted to the bath and w.c. on the first floor is utilised as a fourth bedroom or workroom. Great economy in plumbing was effected by keeping all sanitary fittings on the ground floor.

The living-room, 19 feet by 12 feet, is designed to get as much sun as possible, having windows on three sides. An " Interoven " stove was built in for cooking purposes, and its appearance enhanced by antique Dutch tiles framed within a moulded architrave and shelf detailed by the architects. The parlour has a

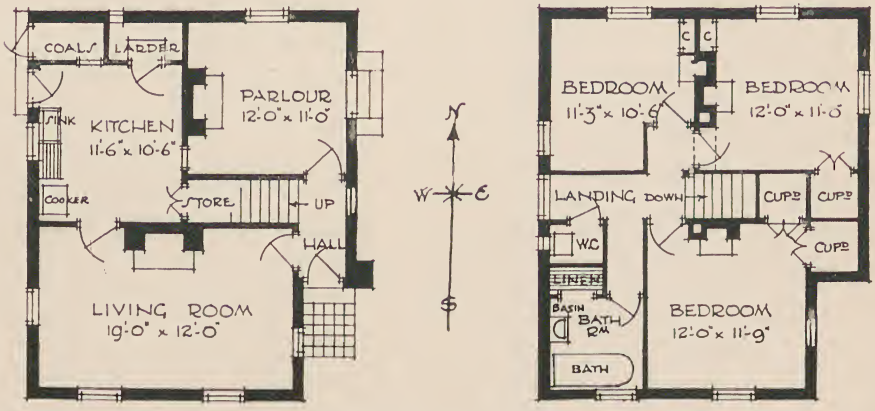
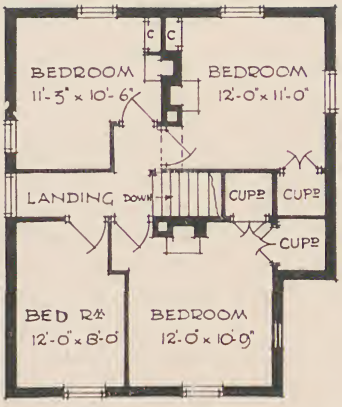
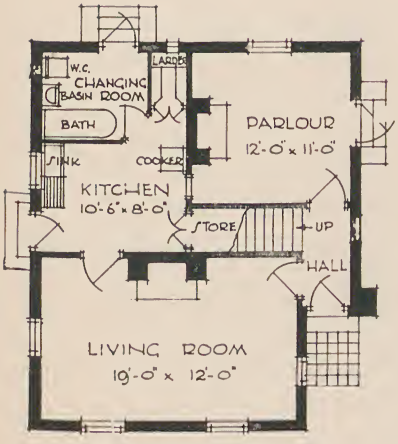



FIG. 22.—GROUND- AND FIRST-FLOOR PLANS REARRANGED TO SUIT AVERAGE REQUIREMENTS.

ENTRANCE FRONT.




FIRST-FLOOR PLAN.




GROUND-FLOOR PLAN.

FROM THE MEADOW.

FIG. 23.—HOUSE AT CUFFLEY.

hearth fire with " flying " shelf. In the dividing wall between it and the kitchen is a service hatch, enabling tea to be conveniently served here.

The floors of the hall, living-room and parlour are laid with wood blocks, stained and polished, and the floors of the kitchen and changing-room are laid with quarry tiles. All the internal woodwork is stained, and the walls are distempered. Externally the walls (of brick) were rendered with cement stucco and treated with " Metallic " liquid, and the result has been an entire absence of damp in a very exposed position.

As built, the house provides four bedrooms (with good cupboards), but a rearrangement of the plan is here given (Fig. 22) for a three-bedroom house, with bathroom and w.c. on the first floor, and a larger kitchen downstairs, so making it conform to average requirements.

This house was built in 1924 at a cost of less than £1,000.

## HOUSE AT WOODLEY, NEAR READING

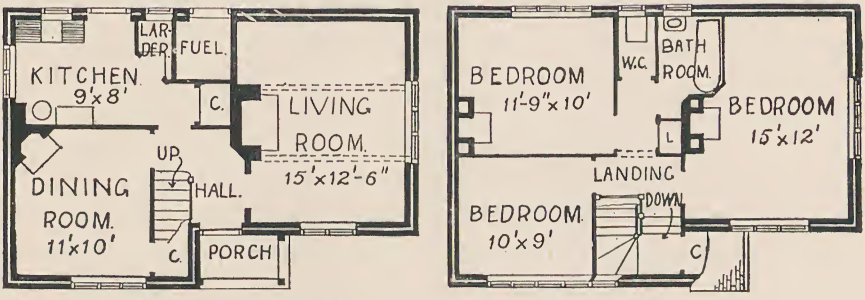
(Figs. 24 and 25)

*Willcocks and Greenaway, Architects*

In the matter of cost this house is a remarkable achievement, for it was erected in 1923 for less than £650. In stating this figure, however, it is necessary to point out again that local conditions and the particular circumstances of the builder very greatly affect the cost of a house. Still, that this house was actually built for the sum stated is a fact to bear in mind, and its economy is largely due to knowledge and experience on the part of the architects.

The entry has a porch covered by a continuation of the roof slope. The living-room (15 feet by 12 feet 6 inches) is on the right, extending from back to front. The dining-room (11 feet by 10 feet) is on the left, and has its fireplace set cornerwise to save space,

FIG. 24.—ENTRANCE FRONT.




GROUND-FLOOR PLAN. FIRST-FLOOR PLAN.

FIG. 25.

and on the other side of the dividing wall is the kitchen-scullery, with the larder opening off it. Upstairs are three bedrooms, bathroom, w.c. and linen cupboard.

The external walls of the house are of 11-inch brickwork, cream-washed above the plinth. The roof is covered with machine-made, stained, sand-faced tiles, and the internal joinery is painted white.

## HOUSE AT COOMBE DINGLE, BRISTOL

(Figs. 26 to 29)

*G. Raymond Morgan, Architect*

THE cost of this house, built in 1926, was just £1,000, this sum including sanitary fittings, electric wiring and fittings, and connection to main drainage, etc., but not architect's fees nor, of course, the site. It will be noted that a lean-to garage is incorporated in the design, and on the garden side the roof is utilised to provide a loggia-like feature. The house has 11-inch cavity walls up to plinth level, with 9-inch brickwork above, rendered with cement rough-cast to which a waterproofing com-

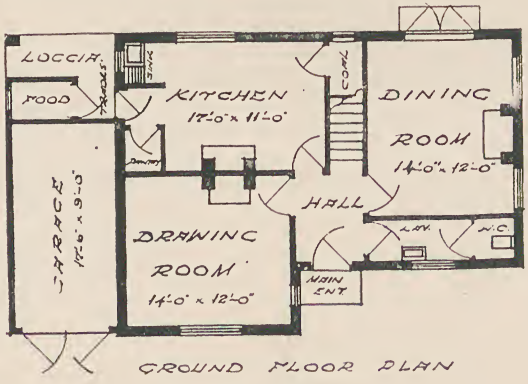



FIG. 26.

pound was added, and finally whitened. The windows are steel casements, and matchboard shutters are provided to some of them. The heads and sills are formed of bricks-on-edge under two courses of roofing tiles. The roof, of 50° pitch, is covered with hand-made sand-faced tiles.

The exterior paintwork is brown for windows, and apple-green for doors, shutters, etc. Waney-edged elm boarding is used to cover the brickwork over the garage.

Internally, the walls are distempered a warm buff tint and all woodwork is stained, the doors being of horizontal panel pattern, fitted with black wrought-iron thumb latches.

FIG. 27.—ENTRANCE FRONT.

FIG. 28.—GARDEN FRONT.

HOUSE AT COOMBE DINGLE, BRISTOL.

The dining-room and drawing-room fireplaces are built up to simple designs with brindle bricks having wide joints, and have hearths and curbs to match. Both rooms have "beams" across the ceilings, of 4-inch by 3-inch deals laid flat, 2 feet apart. The kitchen has a combined hot-water circulation and cooking stove, giving hot water to the lavatory basins, sink and bath, as there is no gas installation.

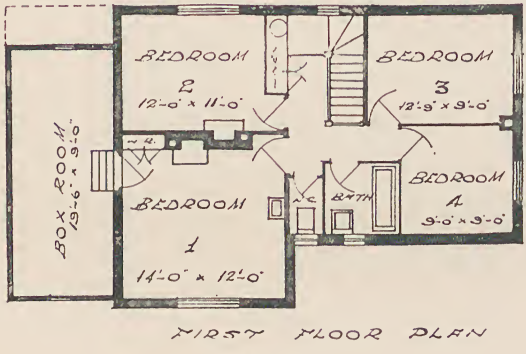



FIG. 29.

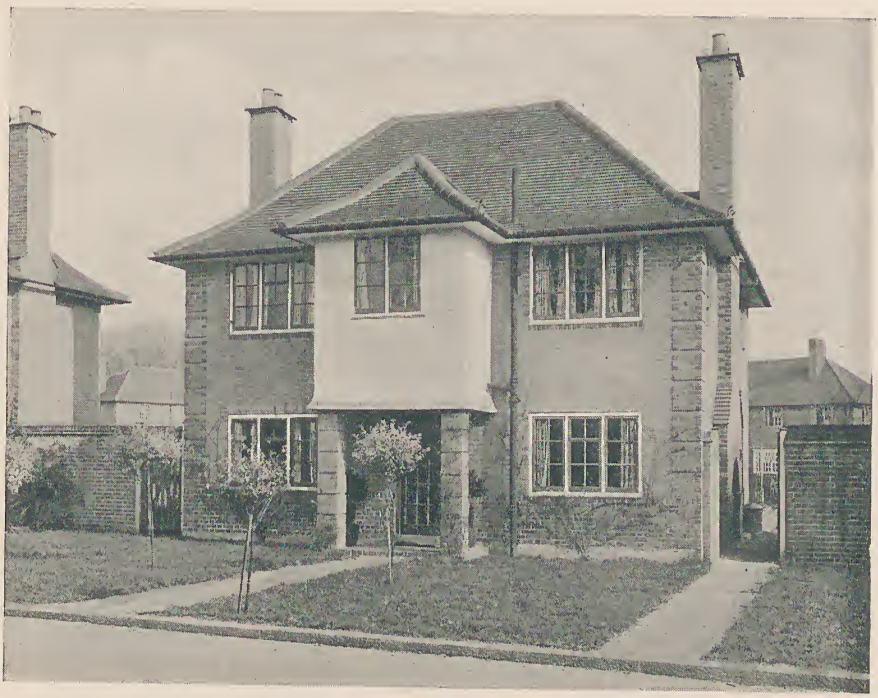
Four bedrooms are provided upstairs, the principal one having a fitted lavatory basin. Bedroom No. 2 contains the airing cupboard, with hot-water cylinder enclosed. The space in the roof over the garage is utilised as a box-room. Storage space in a small house is always a boon.

## HOUSE AT WELWYN GARDEN CITY

(FIG. 30)

*H. Clapham Lander, F.R.I.B.A., Architect*

THE cost of this house is given as £1,075. It has 11-inch cavity walls faced with red brick, a plain tiled roof and casement windows. From the plans it will be seen that the sitting-room (18 feet by 12 feet), extending from back to front, is on one side of the lobby, and on the other side are the dining-room, kitchen, etc. Four bedrooms are provided upstairs, the largest being 15 feet by 10 feet, but, if so desired, the bedrooms on the left could be thrown into one by taking down the division wall, making a room as large as the sitting-room below. This house requires a width of plot not less than 40 feet.



ENTRANCE FRONT.

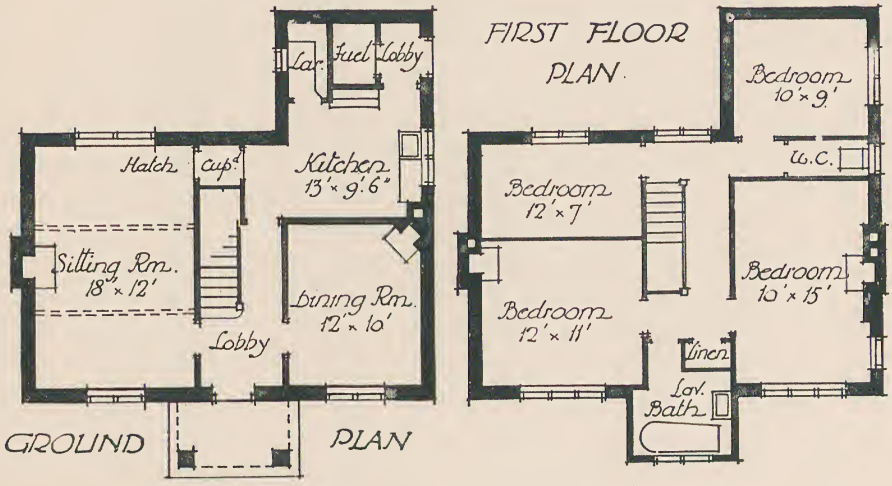



FIG. 30.—HOUSE AT WELWYN GARDEN CITY.

## COTTAGE AT CULEAZE, DORSET

(FIGS. 31 TO 33)

*Ian B. M. Hamilton, A.R.I.B.A., Architect*

SIMPLE in character, this cottage has 11-inch hollow brick walls, cement-plastered, and a roof of straw thatch.

It was built in 1925 at a total cost of £1,067, which sum included digging a well and erecting near it a thatched tool and bicycle shed, which also houses a petrol engine (costing £36)

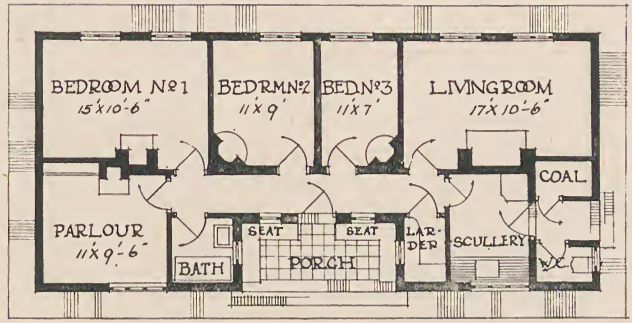
FIG. 31.—DETAIL OF ENTRANCE FRONT.

for pumping the water. The cost of the house itself may therefore be taken as well under £1,000.

Actually, it is a bungalow, and the plan given on the next page shows its arrangement slightly altered to suit average needs. The entry is from a recessed porch on the north side, and leads into a short corridor off which all the rooms open, there being a living-room, parlour, scullery, bathroom, etc., and three bedrooms.

In this scheme the roof space has not been utilised, and it

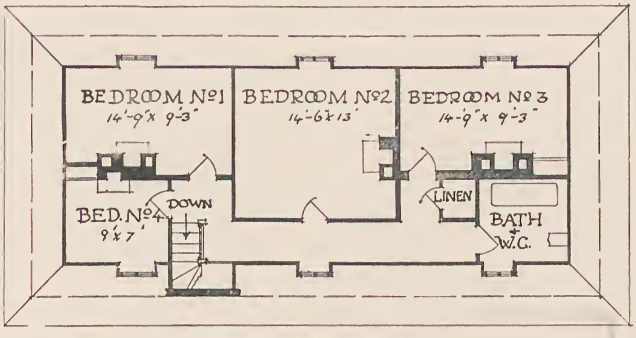
ENTRANCE FRONT.



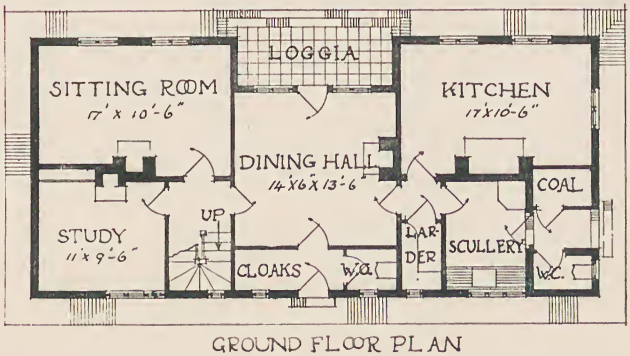
GARDEN FRONT.

FIG. 32.—COTTAGE AT CULEAZE.

is, consequently, rather extravagant. Two plans, therefore, are given below, showing a rearrangement, with the bedrooms, bathroom, etc., put into the roof space, and lighted by dormer windows. In this second scheme the entry is still on the north,




FIRST FLOOR PLAN




GROUND FLOOR PLAN

FIG. 33.—PLANS SHOWING A REARRANGEMENT OF THE COTTAGE SO AS TO UTILISE THE ROOF SPACE AND PROVIDE EXTRA SITTING-ROOM ACCOMMODATION ON THE GROUND FLOOR.

but the porch space is occupied by a small cloakroom and w.c., and a loggia of similar area to the porch is provided on the south side. Centrally placed is a dining-hall, with a sitting-room and study on one side of it, and the service quarters on the other. The dining-hall, it will be noted, is cut off from the entry by double doors, and the staircase is apart from it. Consequently, draughts would not be experienced.

## TWO HOUSES AT WILLINGDON, NEAR EASTBOURNE

(FIGS. 34 TO 36)

*John D. Clarke, F.R.I.B.A., Architect*

EACH of these houses would cost about £1,000 to build to-day. The one shown below (plans on next page) occupies a site adjacent to the entry to an old farmhouse which the architect adapted to modern needs some years ago. The walls are hollow, with 4½-inch brick inner skin, a 2-inch cavity, and an outer skin composed of 3-inch bricks-on-edge as a backing to 6½-inch flint facing (bonded to the brick backing with galvanised wall ties). The plan is compact. To economise space, the stairs rise in one straight flight between walls to the first floor. On the left is a living-room 19 feet by 12 feet, with a fireplace centrally

FIG. 34.—ENTRANCE FRONT.

placed on the outer long wall. Opening out of it is a kitchen-scullery, with the sink set under the window and a gas cooker on the inner wall. The larder is placed next to the back door, and a coal store beside it. To the right of the entrance lobby is a parlour 12 feet by 10 feet with a corner fireplace. In passing, it may be noted that this is very convenient in a small room, as it saves space and facilitates the arrangement of furniture. Where the area is strictly limited it is often possible, when the fireplace is set across a corner, to place a piece of furniture such as a bookcase

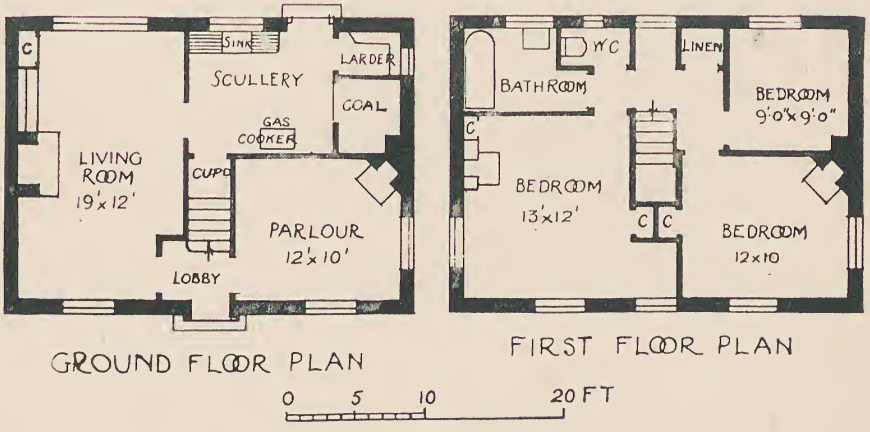
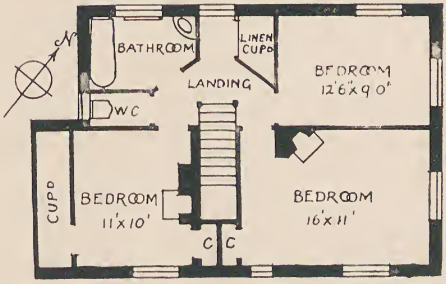


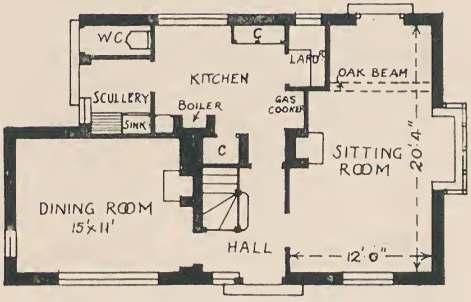

FIG. 35.—PLANS OF HOUSE ILLUSTRATED ON PRECEDING PAGE.

which could not possibly be accommodated where the chimney-breast was centrally placed on the wall. Upstairs in this house at Willingdon are three bedrooms, bathroom, w.c. and linen cupboard.

The other house at Willingdon (Fig. 36) is of different construction and has larger accommodation. The lower storey is of brick, whitewashed, and the upper storey is tile-hung. The roof is also of tiles, crowned by a central brick stack with a good corbelled capping. The sitting-room, 20 feet 4 inches by 12 feet, extends from back to front and has a window at the front, a square bay window on the outer long side, and a garden doorway at the back. The dining-room is also a good-sized room, and the kitchen quarters are conveniently arranged. Three bedrooms (the largest 16 feet by 11 feet) are provided upstairs.




FIRST FLOOR PLAN




GROUND FLOOR PLAN

0 10 20 30 FEET

FIG. 36.—HOUSE AT WILLINGDON.

## HOUSE AT THAMES DITTON

(FIGS. 37 AND 38)

*G. Alan Fortescue, A.R.I.B.A., Architect*

THOUGH three, four, or five bedrooms are the usual requirements in houses for middle-class folk, occasionally a two-bedroom house is desired, and it is of interest, therefore, to study this example. Simple in character and with a plan conveniently arranged, it was designed for a narrow plot of 30 feet frontage. The walls are of 9-inch brick, rendered on the outside with Portland cement stucco in two coats, the last coat finished with a wooden "float" (which gives the surface a pleasant texture), and twice distempered with "Duresco." The brick plinth was twice tarred. The roof is of hand-made sand-faced tiles; the windows are steel casements, the sills being laid externally with two courses of tiles in cement, and internally with 6-inch quarry

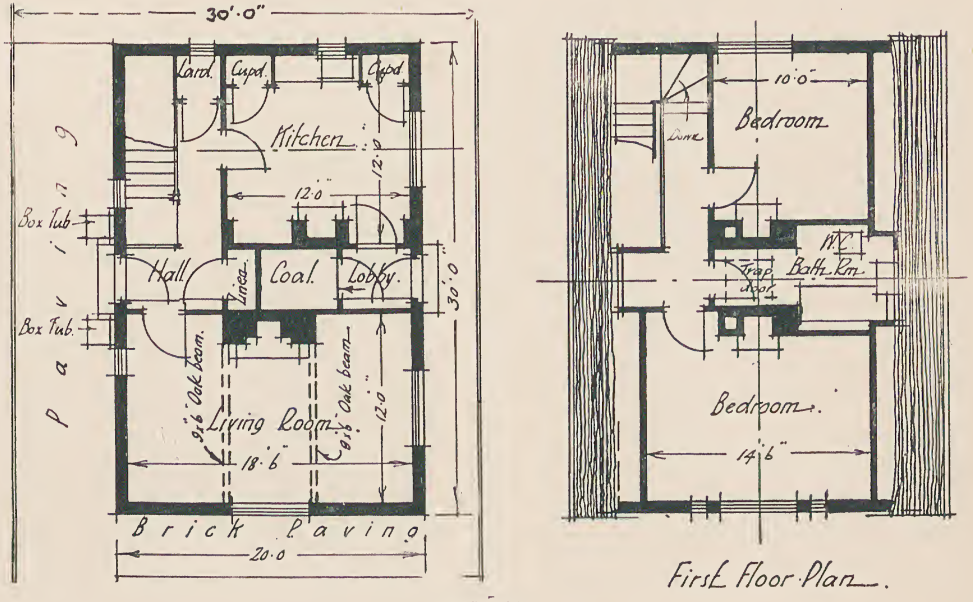



FIG. 37.

FIG. 38.—FROM THE ROADWAY.

tiles, waxed. The gables have concrete " springers " at the eaves, which project 18 inches, and are boarded underneath. The apex of the gable is filled in with elm weatherboarding. The joinery is of Oregon pine.

As regards the plan, on the ground floor is a large living-room (18 feet 6 inches by 12 feet) extending across the front, with a brick fireplace set centrally on the inner wall. On the other side of the house is the kitchen (12 feet square), with a range on the inner wall and store cupboards on either side of the sink at the opposite side of the room. The larder is set at the end of the

passage, next to the stairs. Between the kitchen and the living-room is a small lobby, with side entrance, and at the inner end of the lobby is the coal store. On the first floor are two bedrooms (respectively 14 feet 6 inches by 11 feet and 11 feet by 10 feet), with a bathroom set between them.

The present cost of building this house is estimated at about £800.

## HOUSE AT UXBRIDGE, MIDDLESEX

(FIGS. 39 TO 43)

*R. A. F. Riding, A.R.I.B.A., Architect*

THE plan of this house is L-shaped, the front door opening into a hall 6 feet square, from which the living-room and sitting-room are entered. A short passage leads to the kitchen, and a cupboard is provided for cloaks, etc., at the end of it. The floor of the hall is laid with wood blocks, stained and wax-

FIG. 39.—ENTRANCE FRONT.

polished, and the walls are distempered. The living-room is 16 feet by 12 feet and has a large window facing south. The sitting-room is 13 feet by 12 feet, with French windows opening on to the garden.

The kitchen has been planned for labour-saving. In the window recess the sink is placed, with teak draining-boards on either side and cupboards below. An electric wash copper is set under the right-hand draining-board, which is hinged and can be turned up against the wall when the copper is being used. In a tiled recess are an electric cooker and independent boiler for hot-water supply, and opposite the window a dresser

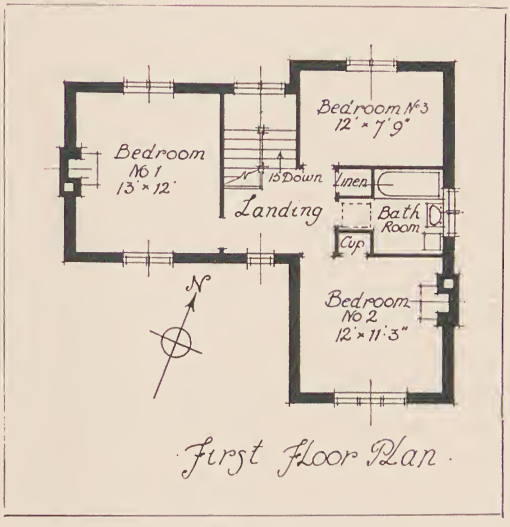



FIG. 41.

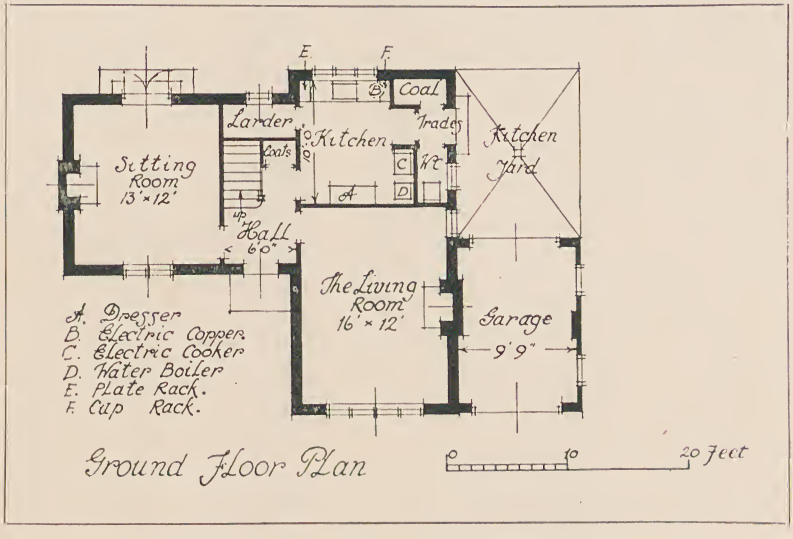



FIG. 40.

extends the full height of the room. A larder, 6 feet by 3 feet, with tiled floor and slate shelf, opens off the kitchen. The trades entrance is tiled and gives on to a concreted yard.

The staircase has oak newels and handrails, wax polished, and leads in two straight flights to a good-sized landing. There are three bedrooms on the first floor, and the bathroom, 8 feet by 6 feet 3 inches, is arranged so as to allow two cupboards to be provided as shown. The bath fits tight into a tiled recess and is enclosed with a marble front.

FIG. 42.—TOP OF STAIRCASE.

FIG. 43.—THE KITCHEN SINK.

Externally the walls are of cavity construction, the facing being of mellow red sand-faced bricks. Plain tiles are laid on the roof, and the windows are metal casements in wood frames painted white. The front door is apple green.

With a garage included as shown, the cost would be in excess of the general sum kept in mind in preparing this volume, but without the garage a similar house could be built to-day for £1,000.

## TWO HOUSES AT LLANFAIRFECHAN, NORTH WALES

(FIGS. 44 TO 46)

*Herbert L. North, F.R.I.B.A., and P. M. Padmore, Architects*

BUILT in 1926, the house shown below cost £1,000. It is a pleasant example following, externally, the cottage precedent, but arranged internally to suit average middle-class requirements to-day. The external walling is 9-inch brickwork, rough-cast, the roof being laid with thick rustic slates in diminishing courses. The windows are Hope's steel casements built in, those on the first floor having hinges that allow the outside to be cleaned from inside.

On the entry side of the house is a corridor giving access to the sitting-room (18 feet 6 inches by 12 feet), the dining-room (15 feet by 11 feet) and the kitchen, and opening off the dining-room is a veranda. This is a feature that is much appreciated as a sitting-out

FIG. 44.—SOUTH FRONT.

place on the sunny side of a house. Frequently, however, it is made insufficient in width. The merits of a veranda can only be fully enjoyed when there is ample space for deck chairs to be set crosswise. In a narrow veranda such chairs (perhaps only two) have to be set lengthwise, and there is then a general feeling of restriction.

Upstairs the corridor is repeated, giving access to three bedrooms—all of a good size. A bathroom, w.c. and linen cupboard are also provided.

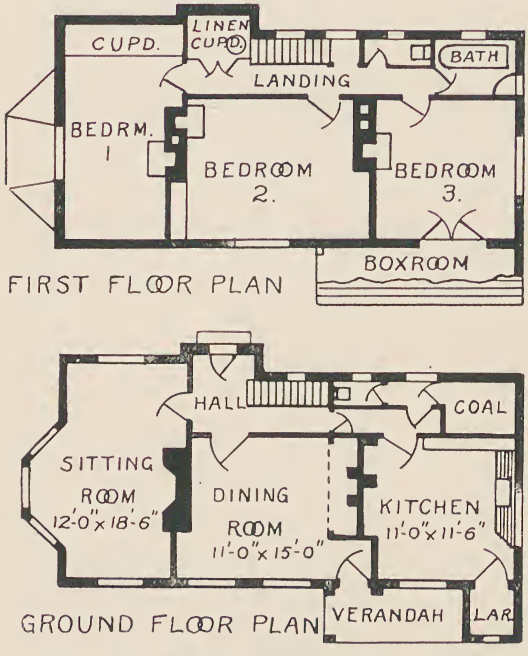
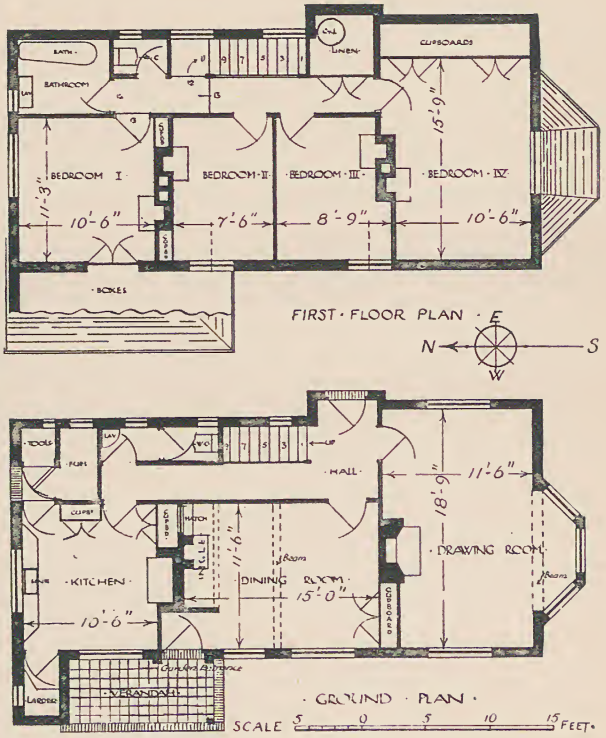



FIG. 45.—PLANS OF HOUSE SHOWN ON PRECEDING PAGE.

The ceilings of the ground floor are left "open" to show the joists, which, like the walls, are cream distempered. The doors are "Woco" doors stained green.

The other house at Llanfairfechan, shown by the illustrations on the opposite page, is similar in arrangement, but with the plan reversed, and on the first floor there are four bedrooms instead of three.

This house also has 9-inch brick walls, cement rough-cast, with slate roof. Its cost was £950 in 1924, inclusive of architects' fees and builder's profit. This is a remarkably low figure, and it is necessary to add that in other parts of the country the house would cost considerably more. At Llanfairfechan the rates for skilled and unskilled labour are 1s. 5½d. and 1s. 1¼d. respectively, whereas in the London district the corresponding figures are 1s. 9d. and 1s. 4d. Nevertheless, the architect has so contrived the work that he has attained a most economical result.




WEST FRONT.

FIG. 46.—HOUSE AT LLANFAIRFECHAN.

## HOUSE AT HILLINGDON, MIDDLESEX

(Figs 47 to 50)

*Christopher J. Woodbridge, Architect*

THE exterior walls of this house are built of 9-inch brickwork, rendered with white cement rough-cast. The sills, arches, steps and front dwarf walls, together with the gate piers, are in Sussex stocks, and the mansard roof is covered with dark red sand-faced tiles. The front doors are in oak, and the door furniture, casements, and front gate are in black iron.

FIG. 47.—ENTRANCE FRONT FROM ROADWAY.

The accommodation on the ground floor comprises a lounge hall, living-room and kitchen, with a garage, studio, store, etc., as appendages; and upstairs are two bedrooms, with bathroom and separate w.c.

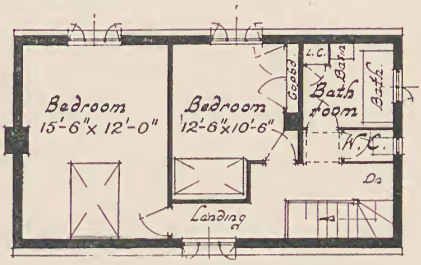



FIG. 49.—FIRST-FLOOR PLAN.

The lounge hall is 14 feet by 10 feet 6 inches, with the stairs leading up out of it to the first floor. This room has a brick fireplace fitted with a back boiler for heating purposes. The living-room, 17 feet by 12 feet, has an oak floor and is panelled with oak. French windows open from it on to the garden.

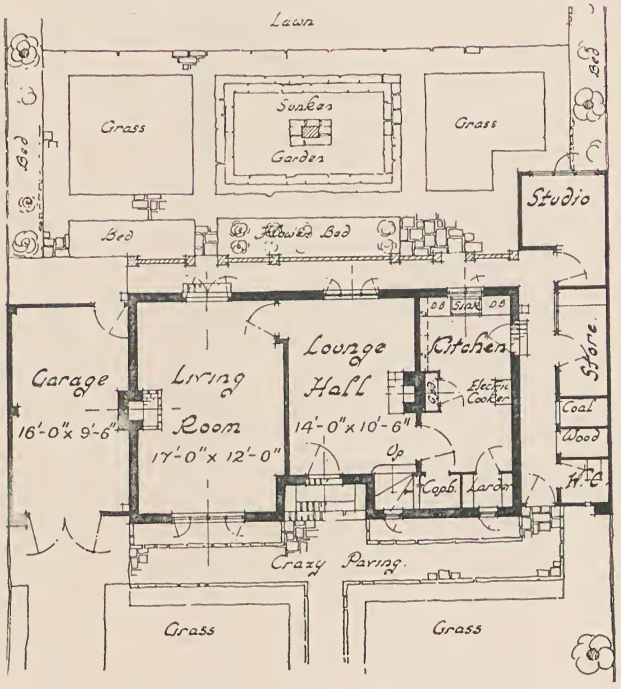



FIG. 48.—GROUND-FLOOR PLAN.

FIG. 50.—IN THE LOUNGE HALL, LOOKING TOWARDS STAIRCASE.

The kitchen-scullery has its floor laid with quarry tiles and is equipped with four cupboards and an electric cooker. The larder opens off one end of it, and at the opposite end is the sink with double draining-boards, well lighted under a window.

On the first floor the larger of the two bedrooms is 15 feet 6 inches by 12 feet, the other being 12 feet 6 inches by 10 feet 6 inches.

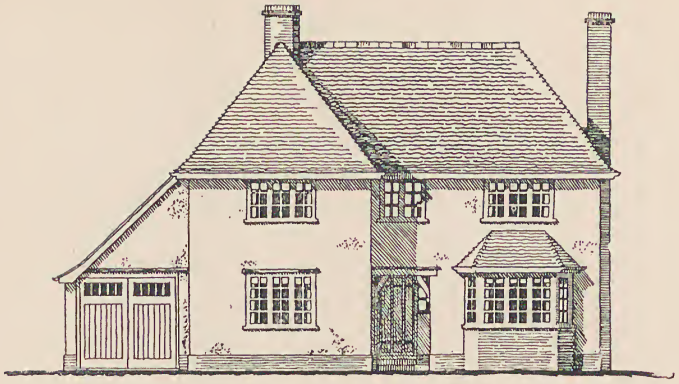
The cost of this house, including the garage, was £875. It was built in 1925.

## HOUSE IN THE THAMES VALLEY

(FIG. 51)

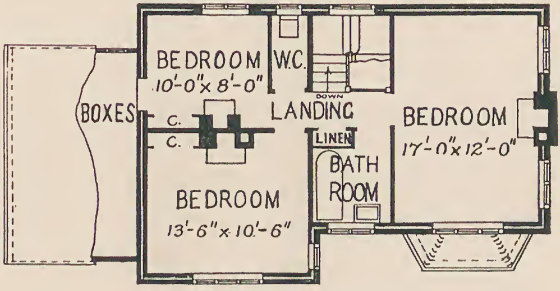
*Willcocks and Greenaway, Architects*

THIS house has recently been completed at a cost of rather less than £1,000, inclusive of the garage. It is representative of the amount of accommodation which it should be possible to obtain in most districts for this sum to-day. The square hall and large sitting-room (17 feet by 12 feet) will be noted. Between the dining-room and kitchen is a " Ure " grate, the fire being in the dining-room and the oven in the kitchen. On the first floor are three good bedrooms, bathroom, heated linen cupboard, and a box space over the garage; and the landing is very compact, there being no unoccupied wall space.

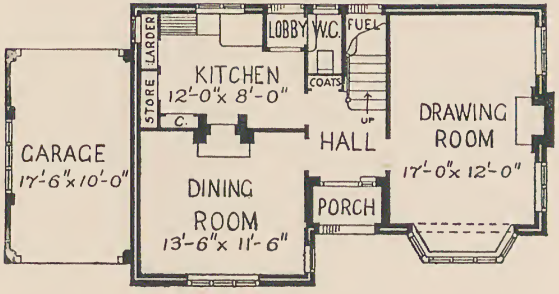


ELEVATION

10 0 10 20 30 40 FEET




FIRST FLOOR PLAN




GROUND FLOOR PLAN

FIG. 51.—HOUSE IN THE THAMES VALLEY.

## HOUSE NEAR MARLOW, BUCKS

(FIGS. 52 TO 54)

*G. Berkeley Wills, F.R.I.B.A., Architect*

THE contract price for this little house in February, 1922, was £536, inclusive of everything except fencing —and this in spite of the fact that the site is a mile and a half uphill and about half a mile from a road. Actually it was built as an estate cottage, but it would make an excellent and very easily run little home for anyone in the country, though certain details in the arrangement might need to be altered to suit individual needs.

It will be seen that the main space on the ground floor is occupied by one large living-room, with a kitchen adjoining,

FIG. 52.—ENTRANCE FRONT.

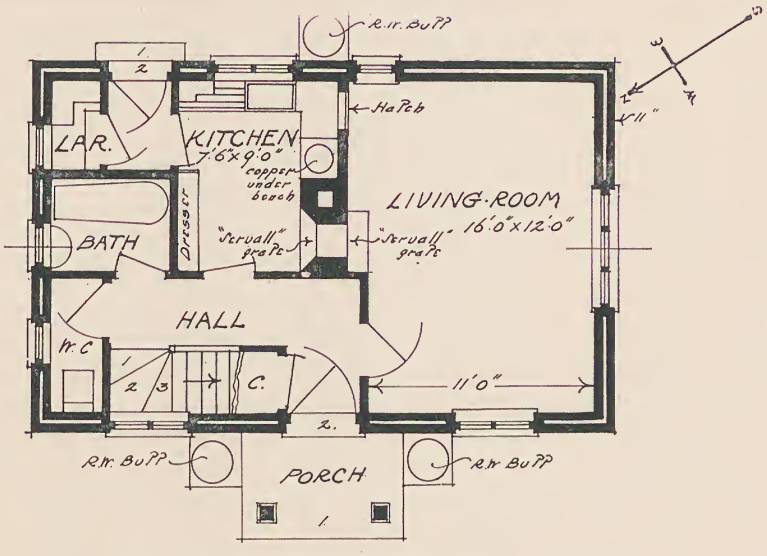



FIG. 53.—GROUND-FLOOR PLAN.

while upstairs there are three bedrooms (two with cupboards) having an area of 150 feet, 100 feet and 70 feet super. respectively.

Floor space is economised by having only one chimney stack, with a " Servall " grate fitted between the living-room and the

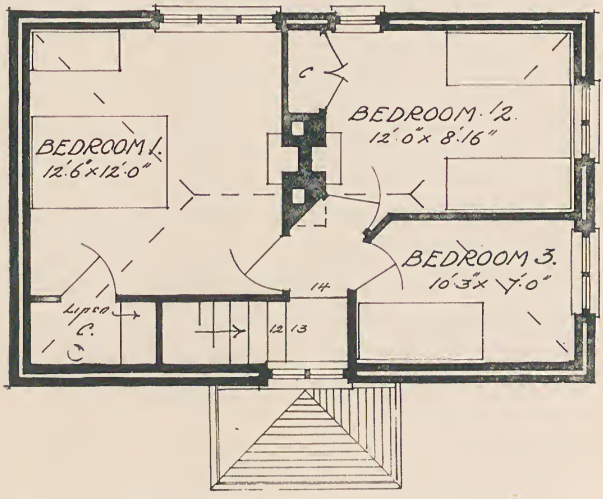



FIG. 54.—FIRST-FLOOR PLAN.

kitchen. This grate has a central hot-water boiler, which is heated by either fire, and an oven which is accessible from either room, so that cooking can be done in the living-room or the kitchen, and hot water obtained over sink, lavatory basin and bath, whichever fire is lighted. The planning of the kitchen has received special attention, and though the space is small there is room for every essential.

The elevations were originally designed with bedroom windows in end gables, the height being 5 feet from first-floor level to eaves, but it was desired to have a window to one bedroom facing south-east, in order to obtain a fine view in that direction, and it was found to be more economical to put the whole roof up with eaves above the window heads, rather than introduce a dormer window. The gable over the stairs window is unnecessary, but was added at the desire of the client. No one can quite approve the placing of the two rainwater butts on either side of the entrance; but these are only small items, easily remediable.

## A SEASIDE HOUSE

(Figs. 55 and 56)

*Geoffrey T. Mullins, A.R.I.B.A., Architect*

ACTUALLY, this house is on an estate on the South Coast, but is equally adapted to any open site. Its cost was well under £1,000.

In working out the plan it was decided to omit passages. The ground floor, therefore, consists of one large sitting-room (26 feet 6 inches by 12 feet) with a deep ingle nook. The staircase leads off this sitting-room through an arched opening, and at the back is a tiled kitchen. There is a coal hatch adjoining the boiler in the kitchen, and this overcomes the necessity to go outside for fuel. Three bedrooms, with bathroom, etc., are provided on the first floor.

The principal bedroom has cupboards on either side of the fireplace on the end wall, and a fairly deep square cupboard opens out of the bedroom on the opposite side of the house.

FIG. 55.—SOUTH FRONT.

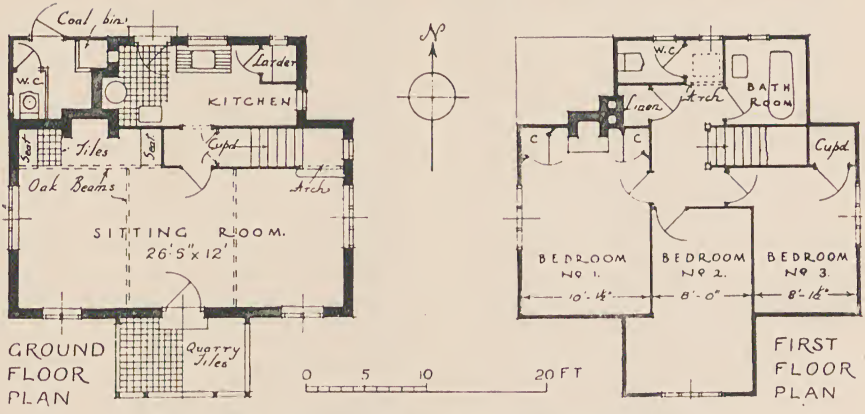



FIG. 56.—GROUND- AND FIRST-FLOOR PLANS.

The external walling is of 11-inch hollow brickwork for the ground-floor storey, with timber framing above, covered with stout felt and waney-edge boarding. The standard metal windows have wood frames and leaded lights, and the roof is covered with plain sand-faced tiles.

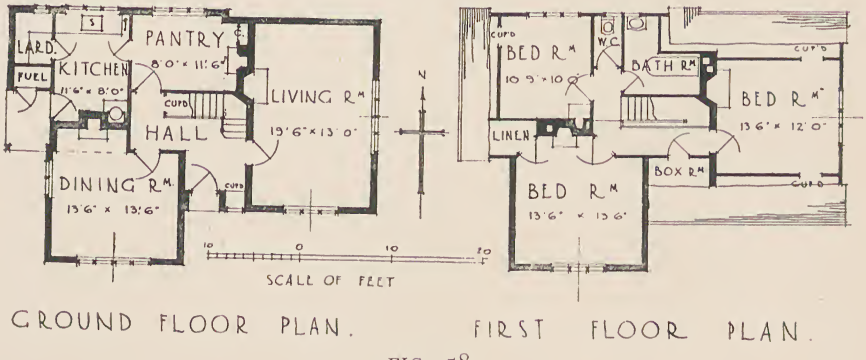
## COTTAGE AT JORDANS, BUCKS

(FIGS. 57 AND 58)

*Lanchester, Lucas and Lodge, Architects*

THE exterior walls of this house are of cavity construction in multi-coloured brick, the gable ends being covered with rough elm-boarding, and the roof laid with hand-made sand-faced tiles with swept valleys. The bedrooms being

FIG. 57.—FROM THE SOUTH-EAST.




GROUND FLOOR PLAN. FIRST FLOOR PLAN.

FIG. 58.

formed mainly in the roof gives ample cupboard space on the first floor, and furthermore reduces the height and therefore the cube of the building. Not only is the living-room a large room in what is really a small house, but the dining-room and bedrooms are also of ample dimensions. An open-fire " Ideal " boiler in the working kitchen supplies domestic hot water and heats a radiator in the hall.

The house was completed in 1928 at a cost of £,1000.

## HOUSE NEAR SEATON, DEVONSHIRE

(Figs. 59 to 62)

*Miss Faith Brooke, Architect*

PARTICULAR interest attaches to this house as being the work of a woman architect. It occupies a hilly site which lent itself to a truncated L-shaped plan, the majority of the windows facing south, to gain a charming glimpse of the sea, while the large bay window at the end of the living-room looks out over a magnificent valley.

The external walling is of 9½-inch cavity construction for the lower storey (hand-made bricks for facing, with 3-inch breeze blocks inside). The upper storey is of 4-inch stud framing, rendered or weatherboarded on the outside and lathed and plastered inside.

From the porch one enters what is virtually a very large living-room, its total length being 26 feet 6 inches, but which can be divided, by means of a folding partition, into two rooms—living-room and dining-hall. Its use as one large room is especially adapted to summer, or for entertainment. This room has beams and joists of English oak, and its open fireplace is carried out with 2-inch bricks and tiles. From one end of what may be called the hall portion, the staircase rises to the first floor.

To the left of the entry is a sitting-room, and adjoining it is the kitchen-scullery, with sink and draining-boards set under a

window, and the range in one corner. A larder is contrived in the opposite corner, and there is a service hatch in the dresser fitment.

Four bedrooms are provided upstairs, the two largest being 15 feet by 10 feet 6 inches and 17 feet by 11 feet 6 inches respectively. All these rooms have a south window, and the end bedroom over the living-room has also an east window. Access to them is given direct from the landing, at one end of which is the bathroom

FIG. 59.—DINING-HALL.

and at the other end a tall, shallow cupboard. Cupboard space is also obtained in the roof slope on the west side of the house.

The windows are Hope's standard metal casements, and the interior wall treatment is with plaster finished with a wood float to give the desired rough surface. The height of the rooms, upstairs and down, is 8 feet 6 inches. All internal woodwork, excepting window frames and skirtings, is left unpainted, the birchwood doors having been treated with a very light satinwood stain which takes a polish.

It will be noticed that the first floor projects to some extent, giving greater floor space upstairs; a concrete lintel being carried around the top of the living-room to distribute the weight.

FIG. 60.—FROM THE SOUTH-EAST.

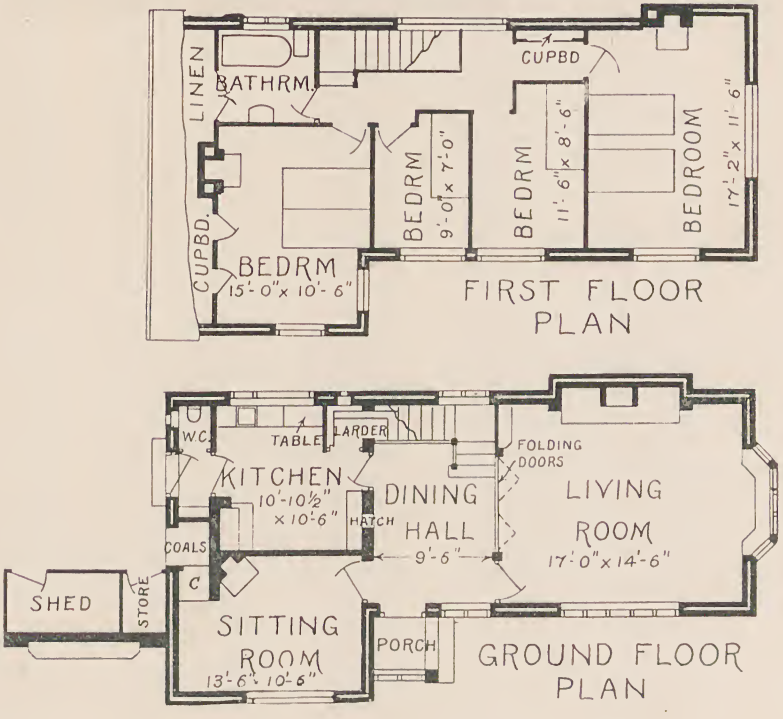



FIG. 61.—GROUND- AND FIRST-FLOOR PLANS.

HOUSE NEAR SEATON.

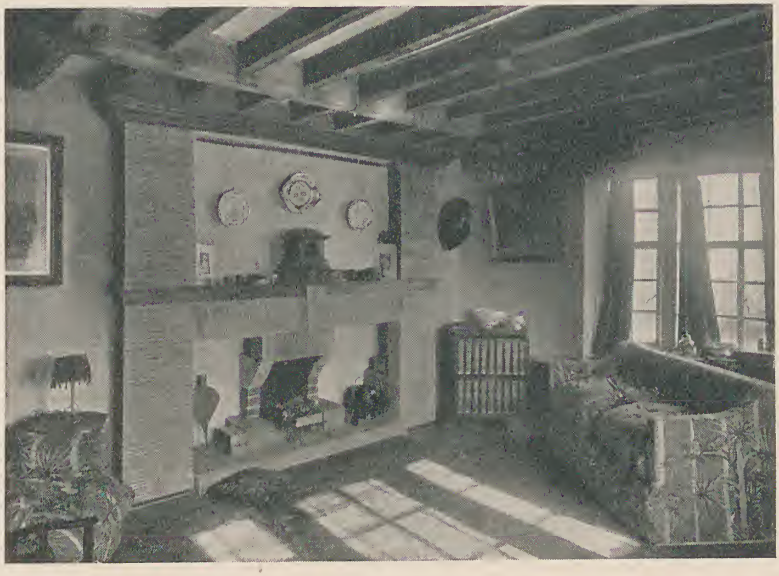


FIG. 62.—LIVING-ROOM FIREPLACE.

The contract price for this house in 1924 was £910, and the final cost, with extras (including a considerable amount of cutting and filling on the site, and the formation of a terrace), amounted to £984.

## HOUSE AT CAVERSHAM, READING

(FIGS. 63 AND 64)

*Willcocks and Greenaway, Architects*

COMPACT planning is one of the essentials in a small house that has to be built at minimum expense with maximum accommodation. This house is a good example, every inch of space being used upstairs and down. The general form of the house follows a familiar type, with a slight break forward on one side at the front, and the entry placed next the angle. The hall is central, with the two principal rooms on either side of it, and the kitchen-scullery at the back. On the first floor are three

bedrooms, bathroom, w.c. and linen cupboard. The exterior walls are of 11-inch brickwork faced with selected deep red, multicoloured bricks with wide, rough mortar joints, and the roof is covered with stained, sand-faced tiles.

FIG. 63.—ENTRANCE FRONT.

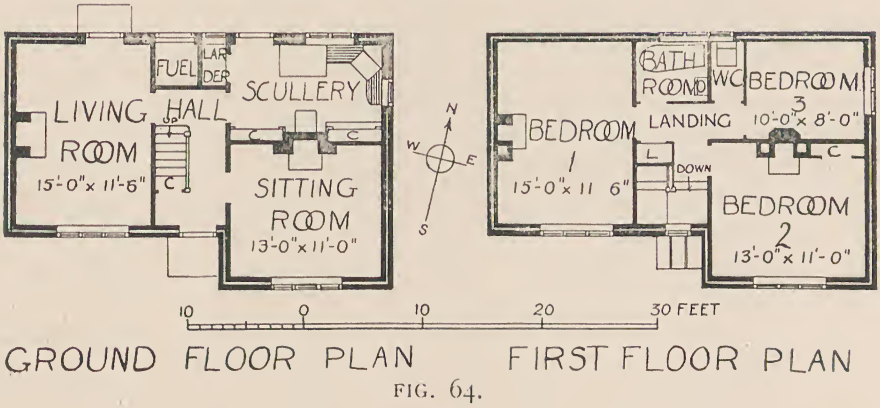



FIG. 64.

## HOUSE AT PORTISHEAD, NEAR BRISTOL

(Figs. 65 to 67)

*C. F. W. Dening, F.R.I.B.A., Architect*

SQUARE in plan, this is an example of a small house with one large living-room on the ground floor and three bedrooms and a bathroom on the first floor. There is considerable merit in having one good-sized room instead of two little ones. The living-room is 18 feet by 10 feet, entered from a passage hall. It is treated as a place for meals as well as for sitting in, and on one side of the fireplace is a deep recess which

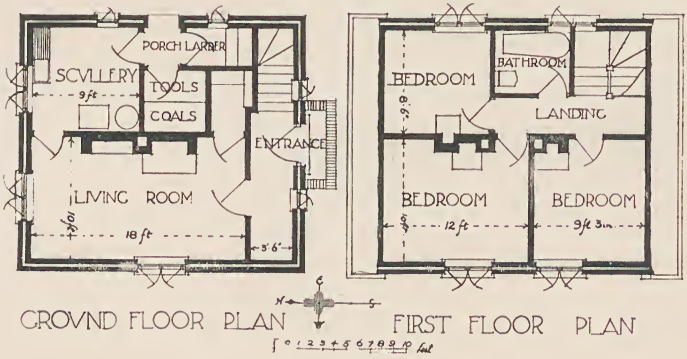



FIG. 65.

can be used for china, glass and stores. Opening off the room is a kitchen-scullery with gas cooker and hot-water supply boiler, and another door gives access to the porch which forms a side entrance to the house. Opening off this porch also are the larder and a place for tools and coals.

The three bedrooms are all of a reasonable size, and each has a fireplace, the flues being gathered together in one stack, which crowns the roof centrally.

The walling is of brick, with 2-inch cavity, rough-cast externally, the roof being covered with brown tiles and the window shutters and doors cross-combed grey and white. The house was completed in December, 1920. As regards cost, it is estimated that a similar house could be erected to-day for about £600.

FIG. 66.—FROM THE SOUTH-WEST.

FIG. 67.—FROM THE NORTH-WEST.

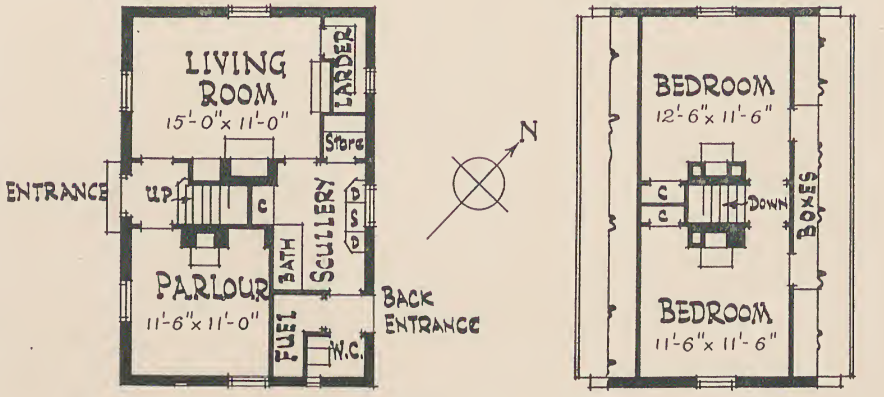
HOUSE AT PORTISHEAD.

## COTTAGE AT CHERRYHINTON, NEAR CAMBRIDGE

(FIGS. 68 TO 70)

*W. J. Kieffer and H. S. Fleming, A.R.I.B.A., Architects*

ACTUALLY this has been built as a gardener's cottage at the entrance to the drive to a large house, but its size and accommodation are such as will suit the circumstances of some people who contemplate the erection of a small detached house for themselves in the country. The walling is of brickwork, whitewashed, the gables being stepped up in a manner that recalls some of the houses in Holland. The roof is of pantiles. At the entry is a lobby, where the staircase rises between walls. To the left is the living-room, to the right the parlour. The scullery is on the garden side, and has a door opening on to a back lobby, where fuel store and w.c. are placed. In the scullery is a bath. Cooking, with a combination grate, is done in the living-room, and the larder opens off this room at one corner, next to a dresser. Upstairs are two bedrooms, each having a cupboard, and there is storage space for boxes in the slope of the roof. The cost of this little house, built in 1927, was £890, inclusive of drainage and electric lighting.




GROUND FLOOR PLAN. FIRST FLOOR PLAN.

FIG. 68.

FIG. 69.—GARDEN FRONT.

FIG. 70.—ENTRANCE FRONT.
COTTAGE AT CHERRYHINTON.

## HOUSE AT CAMBER, NEAR RYE, SUSSEX

(FIGS. 71 TO 73)

*Miss Faith Brooke, Architect*

ERECTED on the flat meadow-lands outside Rye, this house was designed in the Sussex cottage manner for an artist client with certain definite requirements. The chief of these was the provision of a large living-room (similar to that in the house near Seaton by the same architect—see page 65). This room is 27 feet 6 inches by 14 feet and has ceiling beams of English oak. the walls being plastered and finished with a wooden float, giving a rough surface. A large open fireplace formed of hand-made bricks and tiles is a feature of the room. There is a range of windows in the long west wall, and at the south-east corner is another window.

The entry to the house is by way of a loggia, and thence through the living-room. This is an

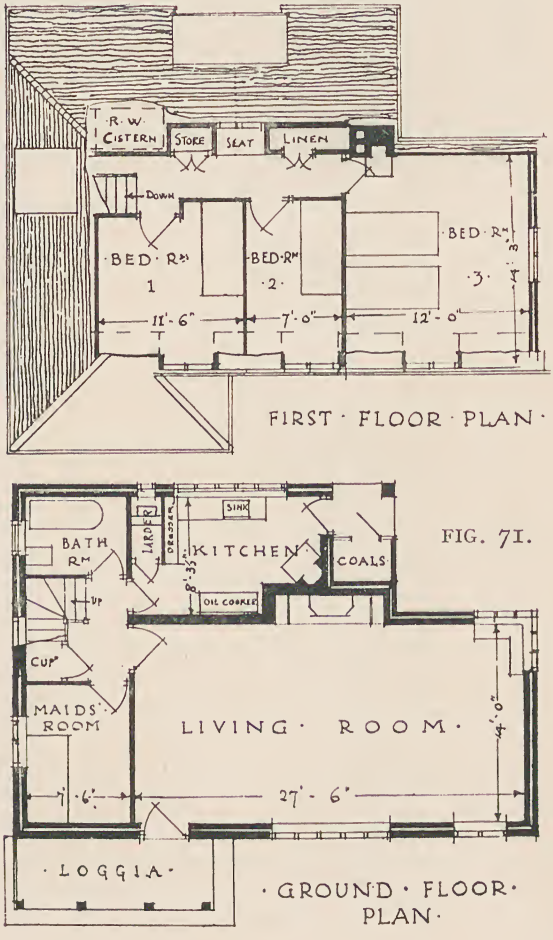



FIG. 71.

FIG. 72.—FROM THE SOUTH-WEST.

arrangement suited to the special requirements in this case, but is not one which can be generally commended, as it has the obvious disadvantage of traffic from front door to service.

The remaining ground-floor accommodation comprises a kitchen-scullery with larder adjoining, a maid's bedroom and a bathroom, this last having been placed downstairs as an economy in connection with the plumbing and water-supply.

Upstairs three bedrooms are provided, with linen cupboard and store.

The wall construction and general interior finish are similar to that of the house near Seaton already referred to—namely,

FIG. 73.—LIVING-ROOM.

9½-inch hollow construction (brick facing with 3-inch breeze blocks inside) for the ground-floor storey, and studding above (weather-boarded or rendered).

This house was built in 1923 at a total cost of £850. It should be stated, however, that the work was done at winter prices by a local contractor who cast his concrete blocks on the site.

## HOUSE AT WELWYN GARDEN CITY, HERTS

(FIGS. 74 AND 75)

*H. Clapham Lander, F.R.I.B.A., Architect*

A T-SHAPED plan has been adopted for this house, the entrance hall and sitting-room occupying one leg, and the dining-room, kitchen and scullery the other. The sitting-room is 16 feet by 12 feet, the dining-room 12 feet by 11 feet 3 inches. The hall has a handy cloakroom at the end of it.

The kitchen is separated from the scullery, which occupies a position at the back of the house, with the larder opening off it; and accessible under cover (always desirable) is an outbuilding for fuel and stores. Upstairs the largest bedroom is the same size as the sitting-room, 16 feet by 12 feet, and the other two are quite a fair size. It is a very good scheme for a small house costing just over £1,000.

FIG. 74.—ENTRANCE FRONT.

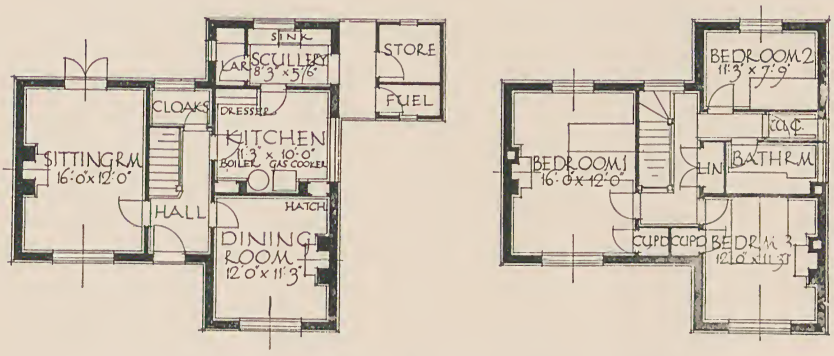



FIG. 75.—GROUND- AND FIRST-FLOOR PLANS.

## HOUSE AT STORRINGTON, SUSSEX

(FIGS. 76 TO 79)

*Cecil J. W. Lindley, A.R.I.B.A., Architect*

IN design and arrangement this is a type of house which appeals to many people. From an enclosed porch at the entry one passes into the hall, where the staircase rises in one straight flight to the first floor. On the left is a sitting-room or lounge with a large square bay-window facing west, and French windows opening on to a loggia facing south. This room is 14 feet by 13 feet, exclusive of the bay. To the right of the hall is the dining-room, of the same dimensions, also having a large square bay window, facing south, and a small window in the east wall. Next to it is the kitchen, where the range is set back to

FIG. 76.—SOUTH FRONT.

FIG. 77.—WEST END.

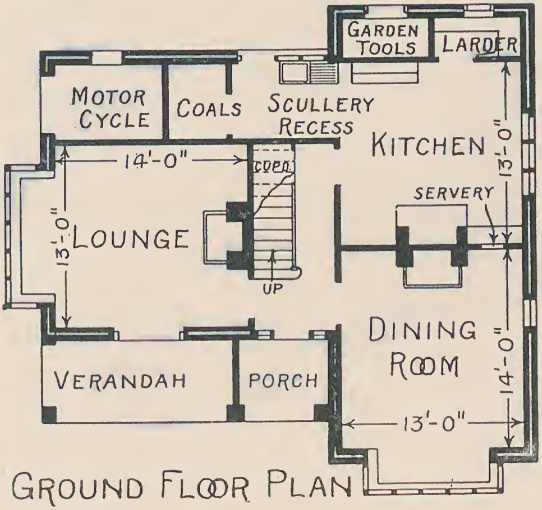



FIG. 78.

back with the dining-room fireplace. The kitchen is well lighted by a good-sized window facing east, which gives the correct (left-hand) light on the range. In the dividing wall is a service hatch. The larder, with north aspect, opens off the opposite

side of the kitchen, and to the left is a scullery recess. The placing of the sink here, with a single draining-board and next to the back door, is, however, an arrangement open to criticism. At the end of the scullery is the fuel store, the remainder of the ground-floor accommodation including a place for motor-cycle, etc., and another for garden tools, both entered direct from outside.

Upstairs are three bedrooms, the two largest being of the same dimensions as the sitting-room and dining-room (14 feet by 13 feet) and the third bedroom 13 feet by 10 feet. The bathroom and separate w.c. are at the back, over the kitchen quarters, and

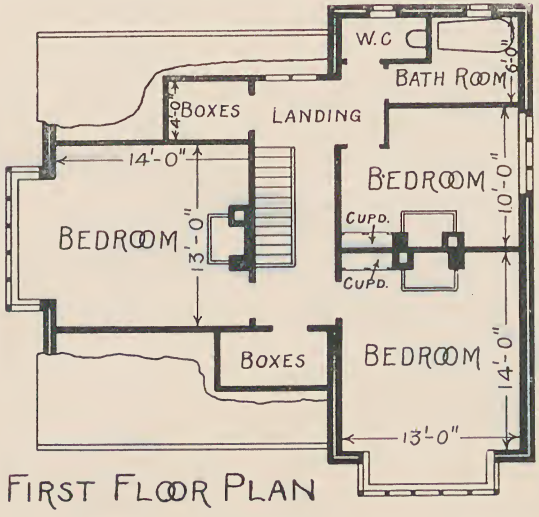



FIG. 79.

therefore convenient for plumbing connections. Two spaces for boxes are provided at the ends of the landing, and the bedrooms are fitted with cupboards.

The house is built with good local bricks covered with rough-cast that has dried out parchment colour. For the entrance porch and loggia, and the chimney stacks, a cheery red brick has been used, the roof and bays being covered with dark sand-faced tiles. Inside, the finish is simple, with distempered walls and white-painted woodwork. Externally, the woodwork and ironwork are painted black, excepting the iron casements, which are painted white.

The total cost of this house, built in 1924, was £950.

## HOUSE NEAR MARLOW, BUCKS

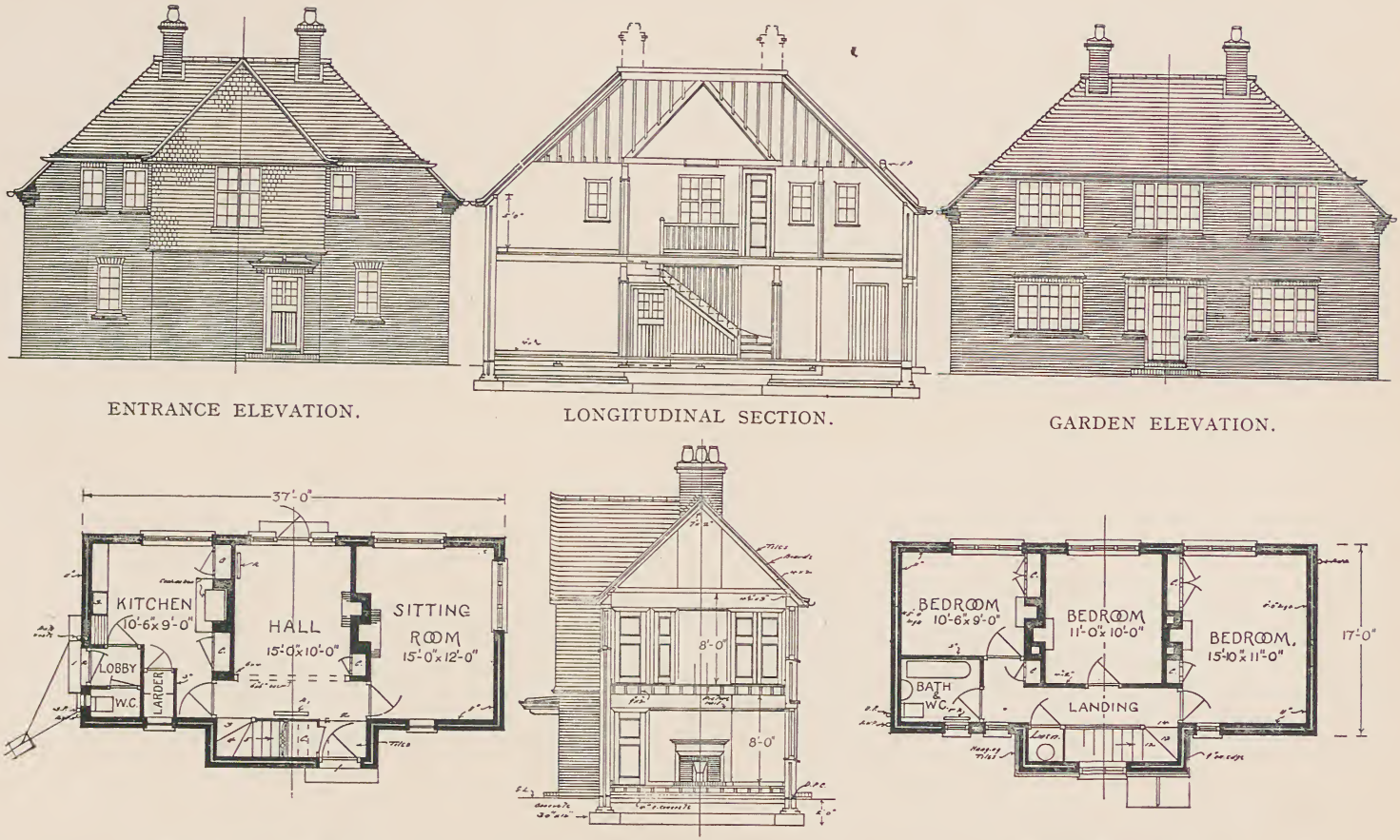
(FIGS. 80 TO 82)

*G. Berkeley Wills, F.R.I.B.A., Architect*

THIS little house is built with 11-inch hollow walls, wood window frames with metal casements painted ivory white, and the roof boarded and covered with hand-made sand-faced tiles. The projection on the entrance front is of 9-inch brickwork, battened and covered with hanging tiles. The photographs here reproduced were taken while the house was still in the hands of the builders and before the garden was made. They represent the house, therefore, in rather a crude state.

The plan is a very compact one, providing a lounge hall, sitting-room and convenient service quarters on the ground floor and three bedrooms upstairs. In connection with the lounge hall

FIG. 80.—ENTRANCE FRONT.




ENTRANCE ELEVATION.

LONGITUDINAL SECTION.

GARDEN ELEVATION.

GROUND-FLOOR PLAN.

CROSS-SECTION.

FIRST-FLOOR PLAN.

FIG. 81.—HOUSE NEAR MARLOW.

it may be noted that there is always a difficulty in making a place of this kind comfortable when it is open to the staircase, as in cold weather especially there is likely to be a draught. In the present instance it would be possible to mitigate this by hanging a curtain from the beam that spans the opening, but actually a partition has been built between the stairs and the rest of the hall, thus making a separate dining-room, with a service hatch between this

FIG. 82.—GARDEN FRONT.

and the kitchen. The latter is equipped with a " Cookanheat," which, in addition to supplying hot water to the sink, lavatory basin and bath, heats two radiators in the hall, thus keeping the house thoroughly warm in winter.

The flooring is of tongued, grooved and secret-nailed boarding, and the fireplaces in the sitting-rooms are formed of small hand-made bricks, with fireclay interiors of the fire-on-hearth type, and wood mantels. The interior woodwork and walls are coloured dove-grey. Cupboards are plentiful.

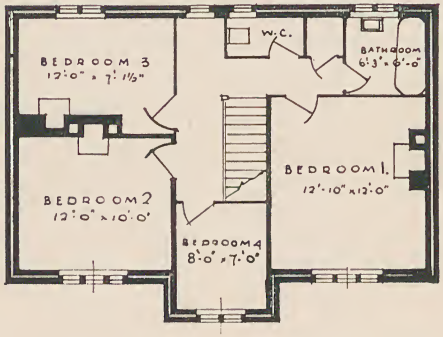
The contract price for this house (in 1928) was £800.

## HOUSE AT COLD KNAP, BARRY, GLAMORGAN

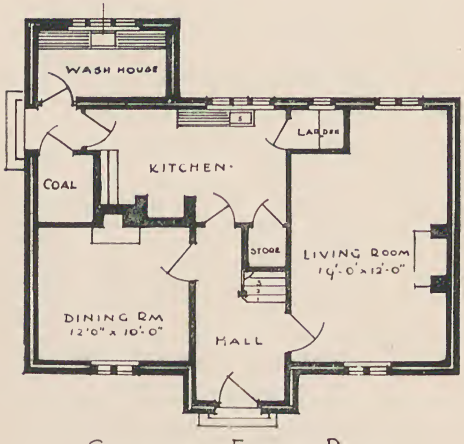
(FIGS. 83 AND 84)

*T. Alwyn Lloyd, F.R.I.B.A., Architect*

IN plan and external design this is a very good example of a small four-bedroom house. It is of oblong form, with a simple hipped roof—the most economical form to build—with a slight break forward in the centre on the entrance front, and a lean-to projection at the back, for a wash-house. The walling is of 11-inch hollow brickwork, covered with two coats of cement rough-cast, colour-washed, the roof being covered with blue Welsh slates (16 inches by 8 inches). The chimney stacks are in brindled Cattybrook bricks, with light joints. The windows are wooden casements.




FIRST FLOOR PLAN




GROUND FLOOR PLAN

FIG. 83.

A simple hood gives protection to the front door, which opens into a hall 7 feet wide, the stairs rising in one straight flight to the first-floor landing. To the right of the hall is the living-room, 19 feet by 12 feet, lighted by a window at each end and having its fireplace on the long outer wall. The dining-room, on the other side of the hall, is 12 feet by 10 feet, and at the back is the kitchen-scullery, with sink under the window. Opening off one corner is the larder, and on the other

FIG. 84.—ENTRANCE FRONT (FACING SOUTH).

side of the kitchen is a lobby with doors to the fuel store and wash-house. This latter is an unusual provision, but a very good one, as it not only provides facilities for wash-days without steam escaping into the house, but also serves as a place where a mangle, washing tubs and other similar things can be kept. The existence of these is often entirely overlooked by house designers, but though it is easy to forget them, the fact remains that they exist and are in the way when there is no place for them in the scullery or kitchen.

Of the four bedrooms upstairs, the largest is 12 feet 10 inches by 12 feet and the smallest 8 feet by 7 feet. Three of the bedrooms have fireplaces. The bathroom is schemed at one corner at the back of the house, and next to this is a linen cupboard, with W.C. adjoining.

This house was built in 1925 at a cost of £950, and is remarkably good value for that expenditure.

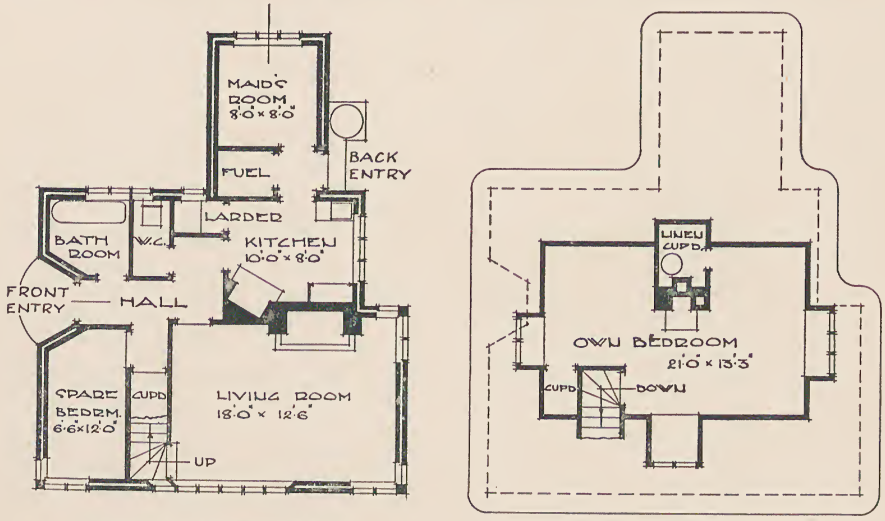
## COTTAGE ON DARTMOOR

(Figs. 85 to 87)

*Fred Harrild, M.A., F.R.I.B.A., Architect*

THE disfigurement of the countryside by badly-designed houses built of unsuitable materials is a matter which is now being resolutely combated. These things need not be, and as one example of what can be achieved we may turn to this cottage on Dartmoor, which has lately been built at a cost of £1,010. It is called "Tumbley," and is close to Holne village, near Buckfastleigh. It stands on very high ground, and has wonderful views of two branches of the river Dart.

The plan is an unusual one. It was schemed to suit the client's particular requirements. On the ground floor the living-room and kitchen occupy the larger portion of the space. At one corner is a bathroom, and at the back is a maid's room. Upstairs the roof space is utilised as one large bedroom, access to which is given by a staircase ascending from one corner of the living-




GROUND-FLOOR PLAN. FIRST-FLOOR PLAN.

FIG. 85.

FIG. 86.—FROM THE SOUTH-EAST.

FIG. 87.—VIEW FROM EAST, SHOWING GARAGE ON RIGHT.

COTTAGE ON DARTMOOR.

room. The whole scheme obviously is not one that would commend itself to average needs, but it suits the particular circumstances of this case.

The cottage has 11-inch hollow brick walls, finished outside with rough stucco distempered a broken white. The thatch is of wheat reed. The windows are Hope's standard steel casements, with leaded lights set in wood frames.

The kitchen has a small Lidstone range which is made locally and gives very satisfactory results with a 40-gallon hot-water cylinder in the linen cupboard.

The fireplace in the living-room is the old-fashioned open type with stone jambs and oak beam and mantelshelf over. The flooring of the entrance porch, passage and bathroom is made up in patterns of tile slips on edge and various local and other stones.

Adjoining the cottage is a garage of timber frame construction covered with waney-edged elm boarding and having a thatched roof. It cost about £50 (which is additional to the building cost of the cottage itself). The cottage and garage were completed in approximately four months.

## COTTAGE AT EASTCOTE, MIDDLESEX

(Figs. 88 and 89)

*Max R. Höfler, A.R.I.B.A., Architect*

EVEN in a small house to-day the usual accommodation required is a sitting-room, dining-room and kitchen on the ground floor, and three bedrooms, bathroom, etc., above; but there are many instances where a two-bedroom house suffices. This is frequently the case in the country, and an example is seen in this cottage at Eastcote. It has been built as a lodge to a large house, but its arrangement is one that would suit the modest needs of people in other circumstances. Here, though a scullery is provided, there is no separate kitchen, as the living-room is fitted with an " Interoven " stove, which serves cooking needs as well as having the ordinary appearance of an open fire.

FIG. 88.—ENTRANCE FRONT.

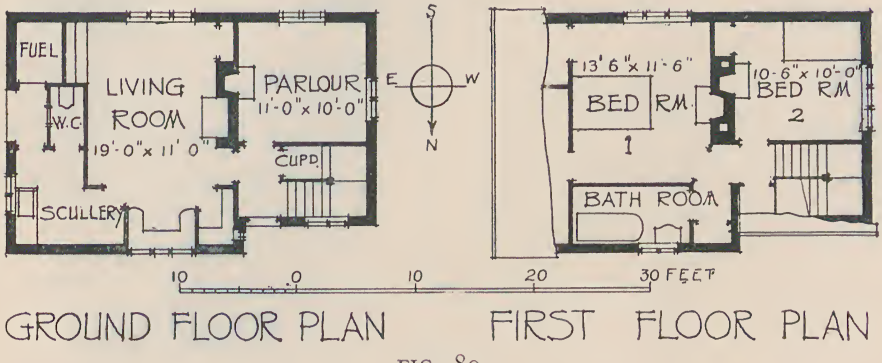



FIG. 89.

At one end of the room is a recess which is used for meals, and next to this is the larder.

The entry is into a tiny hall, with the stairs ascending immediately to the right, the under-space of the upper flight being utilised as a hat and coat cupboard. The living-room, facing south and overlooking the garden, is 19 feet by 11 feet, and there is a separate little room (11 feet by 10 feet) with a fireplace, which is very handy. Of the two bedrooms upstairs, one is 13 feet 6 inches by

11 feet 6 inches, the other 10 feet 6 inches by 10 feet. The bathroom, with a cupboard adjoining, comes in the front gable.

The exterior is finished with rough plaster, and the roof is covered with antique tiles, old bricks having been used for the chimney stack. This cottage was built in 1925, by direct labour, at a cost of less than £700.

## HOUSE AT PINNER, MIDDLESEX

(FIGS. 90 TO 92)

*Miss Gertrude W. M. Leverkus, A.R.I.B.A., Architect*

THE practice of an architect having been till lately the exclusive work of men, there naturally is a fresh interest in seeing what is achieved when women enter the profession. At the present time many women are going through a regular course of training in architectural schools, and the Royal

FIG. 90.—GARDEN FRONT.

FIG. 91.—ENTRANCE FRONT.

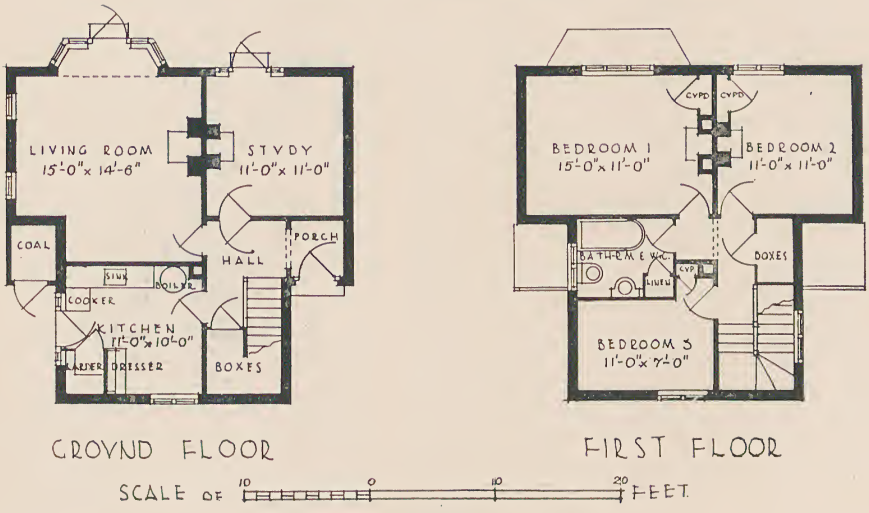



FIG. 92.

HOUSE AT PINNER.

Institute of Architects has already more than thirty qualified members. One of these is Miss Leverkus, and this house at Pinner is an example of her work. Another example—a house at Rickmansworth—is shown on page 97.

The plan of the Pinner house is an abbreviated T, a living-room and study, with two bedrooms over, occupying one part, and the hall, staircase and kitchen, with bathroom and third bedroom over, occupying the other part.

The entry is on the north side, where there is a covered porch. The hall is a small L-shaped space, with doors opening direct into the living-room and study, and into the kitchen. Storage for boxes, etc., is contrived at one end of the hall and under the staircase, and the larder is schemed at one corner of the kitchen.

The aim has been to provide a convenient house that can be run without a maid living in. Coal fires were therefore reduced to a minimum and gas used everywhere, except in the living-room, which has a brick fireplace. Cooking is by gas, hot-water supply by a geyser in summer and an independent boiler in winter. The placing of the sink on the inner wall of the kitchen, with the gas cooker next to the tradesmen's door, is not an arrangement to be commended. The sink is not in a good light, and the cooker is in a draughty position. It would have been better to put the sink on the outer wall and the gas cooker near by. But the arrangement adopted was desired by the client, so that the window recess should be left clear as a place for breakfast table and chairs.

All three bedrooms have a cupboard; the linen cupboard is placed in the bathroom; and on the landing is a large cupboard for boxes.

The wall construction is of 9-inch brickwork, finished with rough-cast outside and cream-distempered plaster inside. The roof is tiled. The windows are wood casements painted white, and added interest is given to the elevations by louvred shutters painted green. The living-room has a bay with French window opening on to the garden. The internal woodwork is stained, the hall floor is laid with red quarry tiles, the kitchen floor is granolithic (for linoleum), and the other floors are of ordinary deal boards.

The building cost of this house (in 1926) was £566.

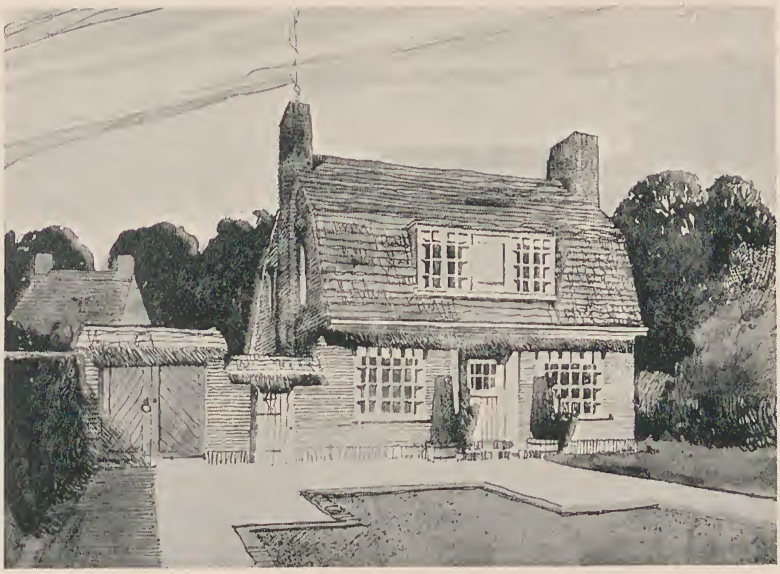


FIG. 93.—ENTRANCE FRONT.

## A COMPETITION DESIGN

(FIGS. 93 AND 94)

*T. Schaerer, F.R.I.B.A., Architect*

PLACED first in the competition held in connection with the *Daily Mail* Ideal Home Exhibition, 1927, this design for a small house estimated to cost £850 was spoken of in high terms by the assessors. On the ground floor a large proportion of the space is given up to the living-room (18 feet by 11 feet), which extends from front to back. This room is intended to be used for meals, and has a service hatch to the kitchen adjoining. Three bedrooms are provided upstairs.

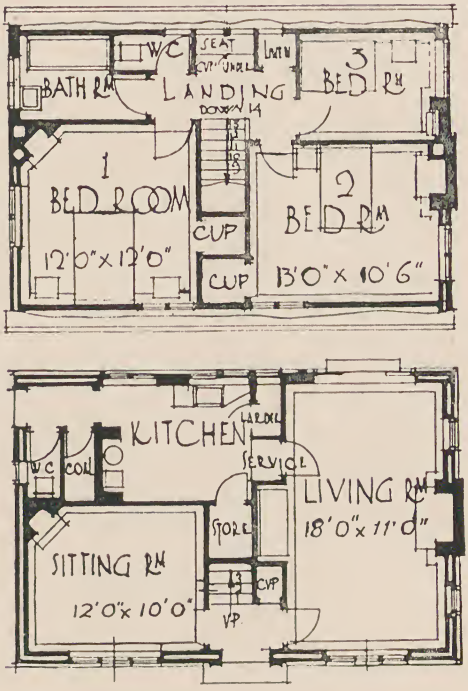



FIG. 94.—GROUND- AND FIRST-FLOOR PLANS.

## SEMI-BUNGALOW AT COLD KNAP, BARRY, GLAMORGAN

(FIGS. 95 AND 96)

*T. Alwyn Lloyd, F.R.I.B.A., Architect*

THIS is interesting as an example of a bungalow type of house with a large gabled centre portion providing two bedrooms upstairs. It was built in 1927 at a cost of £820, including drainage, paths and fencing.

The dining-room and sitting-room, each 15 feet by 12 feet, come at the front of the house, while at the back are the service quarters on one side, and a downstairs bedroom and bathroom on the other side. The kitchen is nearly square, with a sink under the window in the outer wall, and a gas cooker opposite, next the inner wall.

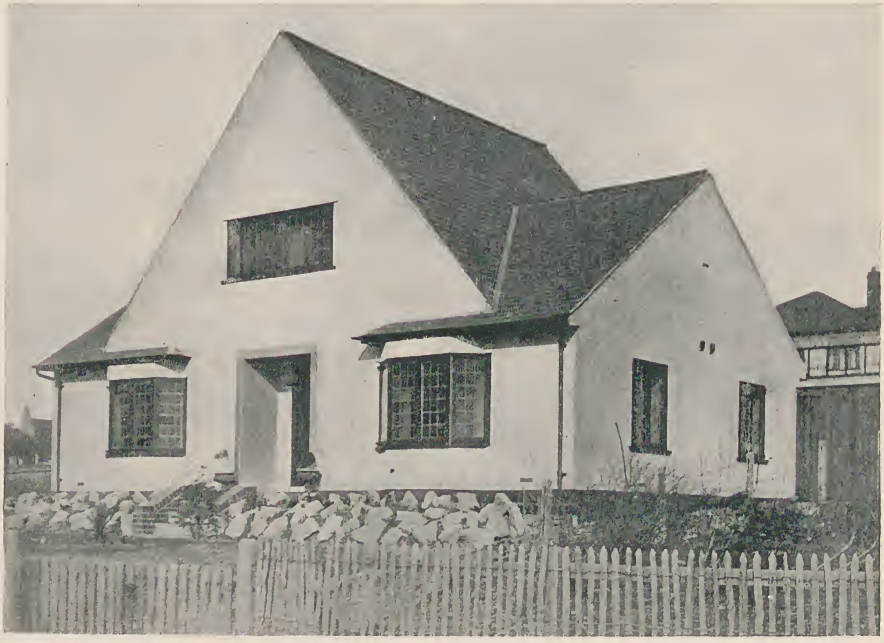
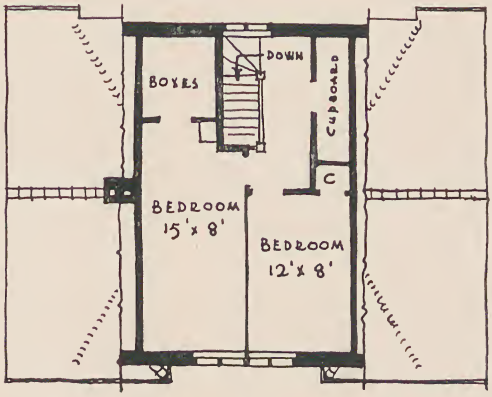
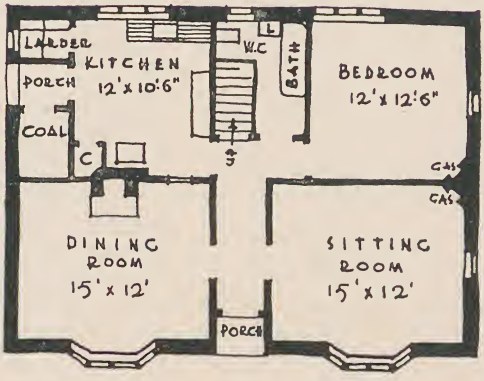


FIG. 95.—ENTRANCE FRONT (FACING WEST).




FIRST FLOOR PLAN




GROUND FLOOR PLAN

FIG. 96.

The larder opens off one corner of the kitchen, and adjacent to the gas cooker is a storage cupboard. There is a back porch with coal store under cover. The bathroom is L-shaped, being contrived around the staircase. The bedroom next to it has, like the sitting-room on the other side of the dividing wall, a gas fire set across one corner, which is a good arrangement for saving space in a small room.

The two bedrooms upstairs are long narrow rooms, one being 12 feet by 8 feet, the other 15 feet by 8 feet. This is not a pleasant shape, but it was the client's wish to divide the space into

two rooms. There is a boxroom at the end of the larger bedroom, and opening off the landing is a long cupboard.

The walls are of 11-inch brickwork, covered with two coats of cement, rough-cast and colour-washed, the roof being laid with blue Welsh slates. The windows are casements with leaded lights.

## HOUSE AT RICKMANSWORTH, HERTS

(FIGS. 97 AND 98)

*Miss Gertrude W. M. Leverkus, A.R.I.B.A., Architect*

THE main body of this house is an oblong, with a slight break forward on the front elevation. The entry is central, a covered porch being provided, opening into a hall 6 feet wide, with a staircase rising at one side. Incidentally, this staircase has a series of winders—a feature to be avoided if it is intended to lay a carpet.

The sitting-room is to the left of the entry, with a large window facing south and a smaller window in each end wall, facing east and west respectively, the fireplace being on the inner long wall. This room is 16 feet by 11 feet 3 inches.

The dining-room and kitchen occupy the other side of the house, being schemed next to one another for convenience. The larder is placed at one corner of the kitchen, next to the tradesmen's door. Cooking is by gas, hot-water supply by a geyser in summer and an independent boiler in winter. The only coal fire is that in the sitting-room, gas fires being fitted in the other rooms. The fuel store is placed at the end of the staircase hall, but its position here is open to criticism. It has the merit of giving access under cover, but inevitably it brings dust and dirt into the house.

Of the three bedrooms upstairs, the principal one is of very good size (14 feet by 11 feet 6 inches), the other two being 11 feet 6 inches by 9 feet and 11 feet 6 inches by 6 feet 6 inches respectively.

As we should expect from a woman architect, the house is well supplied with cupboards. There is one for coats under the staircase, each of the two larger bedrooms has a cupboard, and

FIG. 97.—ENTRANCE FRONT.

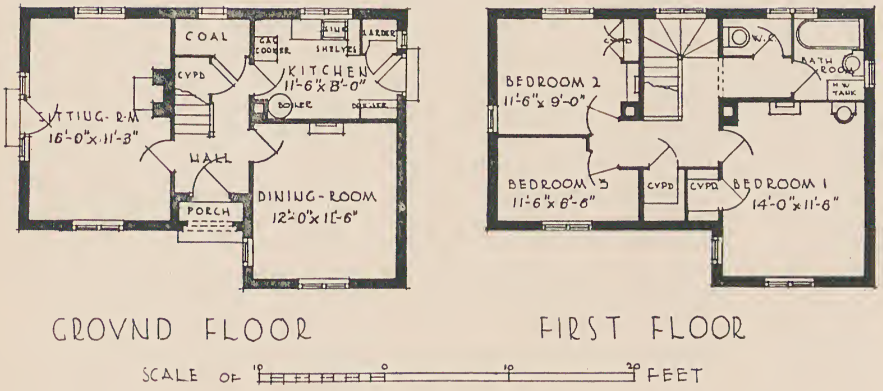



FIG. 98.

there is a good-sized linen cupboard on the landing. The principal bedroom has a fitted basin, with hot and cold water supplies.

The walling is of brickwork, plastered and whitened externally and cream-distempered inside. The roof is tiled. The hall has a tiled floor, the kitchen a granolithic one; elsewhere there are ordinary boarded floors.

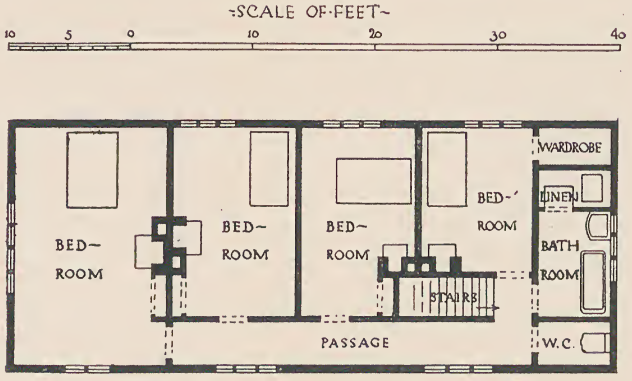
This house was built in 1924 at a cost of £930.

## HOUSE AT MATTINGLEY, HAMPSHIRE

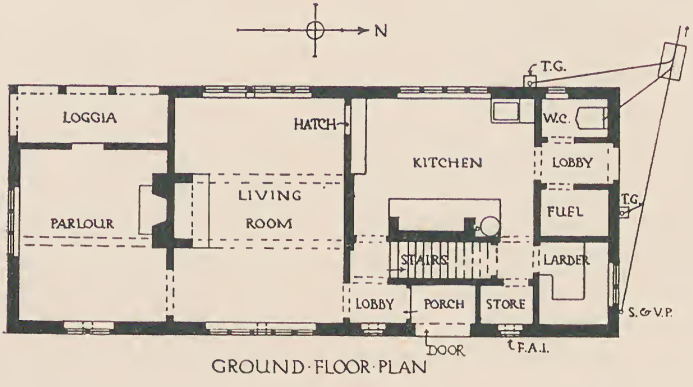
(FIGS. 99 TO 103)

*Robert W. S. Weir, Architect*

THIS house (on a poultry farm) is not only an admirable, straightforward example of design, but also a notable achievement as regards cost, for it was built in 1923 for about £950—exclusive of architect's fees and such outside work as the formation of the garden, approach road, etc. It is situated on a level site some little distance from the main road, the subsoil being gravel.




FIRST FLOOR PLAN




GROUND FLOOR PLAN

FIG. 99.

FIG. 100.—WEST FRONT.

FIG 101.—FROM THE SOUTH-EAST.

HOUSE AT MATTINGLEY.

FIG. 102.—FROM THE NORTH-EAST.

The plan is an uninterrupted oblong (50 feet by 20 feet), with the long sides facing east and west respectively. On the ground floor the living-room (18 feet by 14 feet) extends across the full depth, and opening off it is a good-sized parlour, with a doorway giving access to a loggia facing west and south. On the first floor are four bedrooms, entered from the passage that extends across the east side of the house. The principal bedroom is 19 feet by 12 feet 6 inches, and has a large south window. The other three bedrooms have west windows.

The walls of the lower storey are of local brick, built hollow, 11 inches thick. The upper portion is of timber framing, with elm weatherboarding on the face (a layer of bituminous felt was put over the surface of the framing behind the boarding). The windows are casements. The loggia posts and beams are of elm, and the front door is of oak. The roof is covered with straw thatch, executed by a local thatcher. The whole treatment is one

admirably suited to a country district. Without affectation, it carries on an English tradition of simple building, and is a pleasing feature instead of a blemish in the landscape.

There are oak beams in the living-room and a large brick fireplace with oak lintel and shelf. The steps of the staircase and the floors of the living-room and kitchen are of elm boards, and the loggia is brick-paved. Fireplaces of brick are provided in all the bedrooms.

A recess was formed in the kitchen to take an oil cooker, and an " Ideal " boiler supplies hot water to the bath, basin and sink. Cold water was brought to the site from the Company's main in the road. There is a lobby to the kitchen, with a fuel store on one side of it and w.c. on the other. The bathroom comes directly over, so facilitating the pipe connections. As already noted, plumbing is an expensive item, and needs careful thought when expenditure has to be closely studied.

The drainage is taken to a distributing tank 150 feet away from the house, whence land drains run in several directions under the soil of the kitchen garden.

FIG. 103.—LIVING-ROOM FIREPLACE.

## COTTAGE AT PENSHURST, KENT

(FIGS. 104 TO 106)

*John D. Clarke, F.R.I.B.A., Architect*

THIS has the right appearance of a country cottage, and, as may be seen from the upper illustration on the opposite page, it fits admirably into its setting. The site slopes down to the west, and there is a logical extension of the roof on this side to cover the space provided for motor-cycles. On the ground floor a living-room 16 feet by 12 feet and a sitting-room 13 feet by 10 feet are planned on either side of the entrance lobby, where the staircase rises in one straight flight between walls to the half landing and then up a few steps to the first floor.

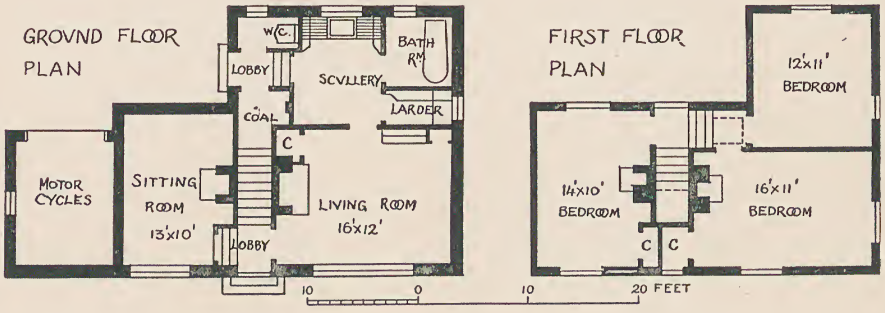



FIG. 104.

At the back of the house is a kitchen-scullery with larder at one corner, and next to this is a downstairs bathroom.

Three bedrooms are provided on the first floor, two of them having fireplaces which, coming directly over those in the sitting-room and living-room, has enabled the flues to be gathered together in the single brick stack that crowns the reed-thatched roof.

The walling is of 11-inch hollow brickwork for the lower storey, with silver-grey tile-hanging above.

This cottage was built in 1923 at a cost of a little over £1,000.

FIG. 105.—GENERAL VIEW, SHOWING SETTING.

FIG. 106.—ENTRANCE FRONT.

COTTAGE AT PENSHURST.

## COTTAGE AT CHEVENING, KENT

(FIGS. 107 TO 109)

*P. D. Hepworth, F.R.I.B.A., Architect*

THIS little house is virtually a bungalow with the roof space utilised as a large attic, 22 feet by 9 feet. The entry is into an oblong hall, at one end of which is the staircase leading up to the attic. The living-room comes at the front of the house. It is 14 feet square, with a fireplace set centrally on its inner wall—back to back with the range in the kitchen-scullery. There is a door between the two rooms which facilitates service. The bathroom is downstairs, opening off the kitchen-scullery, and next to this is a small projection for the fuel store, which is entered from outside. The two bedrooms are well lighted, and one of them is provided with a fireplace. The exterior walling is of white-washed brickwork with boarding (also white-washed) under the eaves of the thatched roof. The windows are steel casements in wood frames, those to the living-room and principal bedroom being provided with solid shutters painted green. Inside, the general treatment is very simple, the woodwork being stained and waxed, and the fireplaces built up of brick with fireclay interiors.

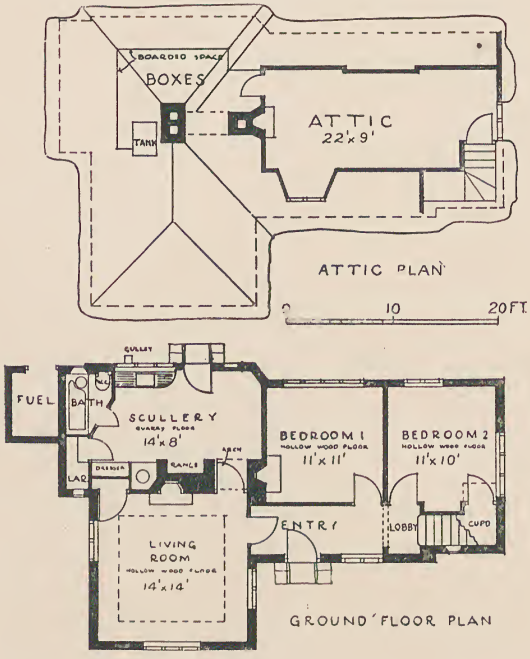



FIG. 107.

The cost, in 1926, was a little over £700, including septic tank, etc.

FIG. 108.—REAR VIEW.

FIG. 109.—ENTRANCE FRONT.

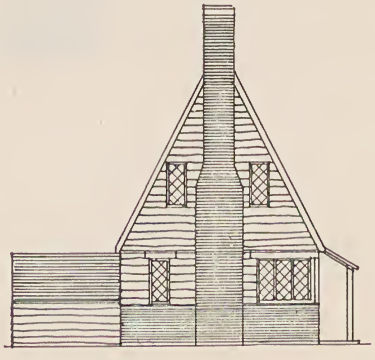
COTTAGE AT CHEVENING.

## COTTAGE AT MARLOW COMMON, BUCKS

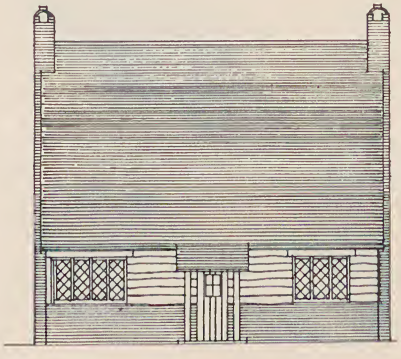
(FIGS. 110 TO 113)

*A. G. R. Mackenzie, F.R.I.B.A., Architect*

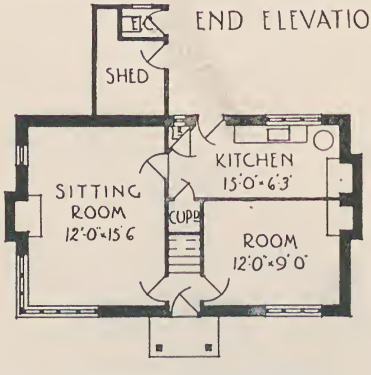
A HOUSE in a wood has always a particular interest, and its surroundings must necessarily have a great influence on its design. In this instance the architect considered that it would look well if his little house had a steep-pitched roof, and in working out the scheme he found that the steep pitch enabled bedrooms to be provided in the roof, conforming to the usual



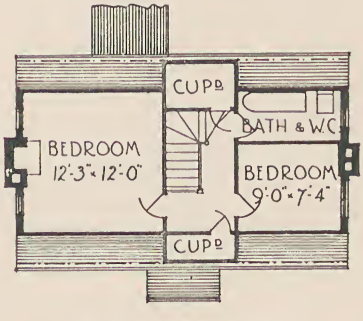
END ELEVATION



FRONT ELEVATION




GROUND FLOOR PLAN




FIRST FLOOR PLAN

FIG. 110.

FIG. 111.—GENERAL VIEW.

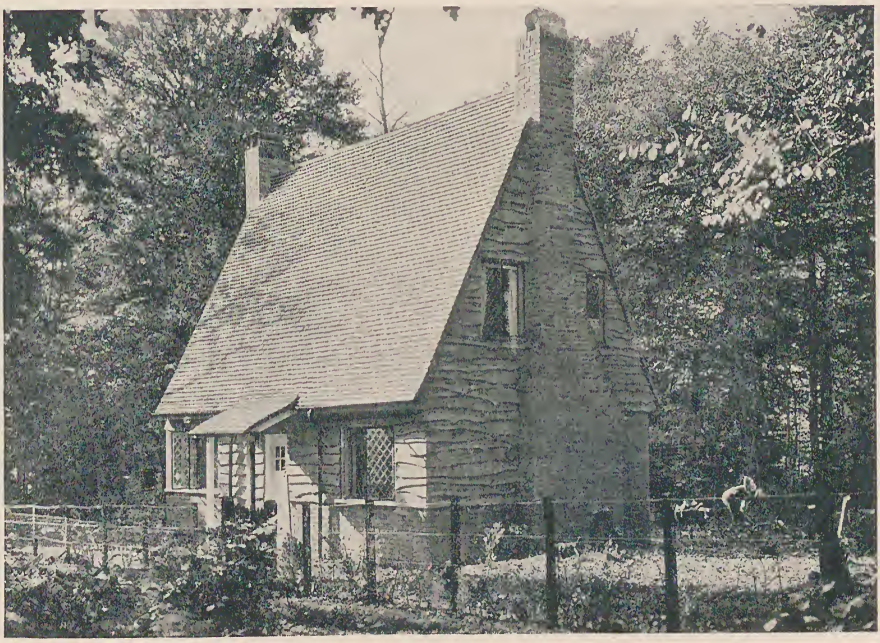


FIG. 112.—ENTRANCE FRONT.

COTTAGE AT MARLOW COMMON.

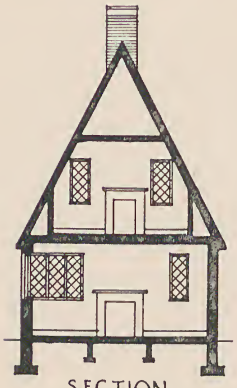



FIG. 113.

regulations as to area and height, without introducing attic windows. A reference to the plan and the accompanying section will show how this has been contrived, the two bedrooms being lighted from windows in the gables.

The walls up to the level of the ground-floor window sills are of 11-inch hollow brick construction, local bricks having been used, selected for colour. Above are 9-inch walls, with rough elm boarding on battens externally, the gable ends being studded and covered with felt and elm boarding. The roof is laid with flat tiles, and these are very weathertight, but pantiles might perhaps have been better still in effect, though likely to give more trouble in maintenance.

The accommodation is very simple, there being two sitting-rooms and a kitchen-scullery on the ground floor, with a shed and earth closet at the back; but there is the convenience of an upstairs bathroom, and the roof space has also been utilised to provide two very good cupboards, accessible from the landing.

The entry is sheltered by a small projection of the roof slope. This is not very happy in effect. It would have been better to omit it altogether, and to have provided instead a simple hood over the doorway. The building cost, in 1928, was £650.

## HOUSE AT WALBERSWICK, SUFFOLK

(FIGS. 114 TO 116)

*Frank Jennings, Architect*

IN this house a large sitting-room (19 feet 6 inches by 10 feet 9 inches) and a kitchen 11 feet square occupy the major portion of the ground floor, and each has its corners splayed at one end. On the hall side this was required in order to give a suitable width of door opening to the kitchen, and on the other side it has been

FIG. 114.—FROM THE NORTH-WEST.

done to make a symmetrical effect in the sitting-room, the space at this corner being used on the kitchen side as a cupboard. The scullery opens off the kitchen, and next to this is the bathroom.

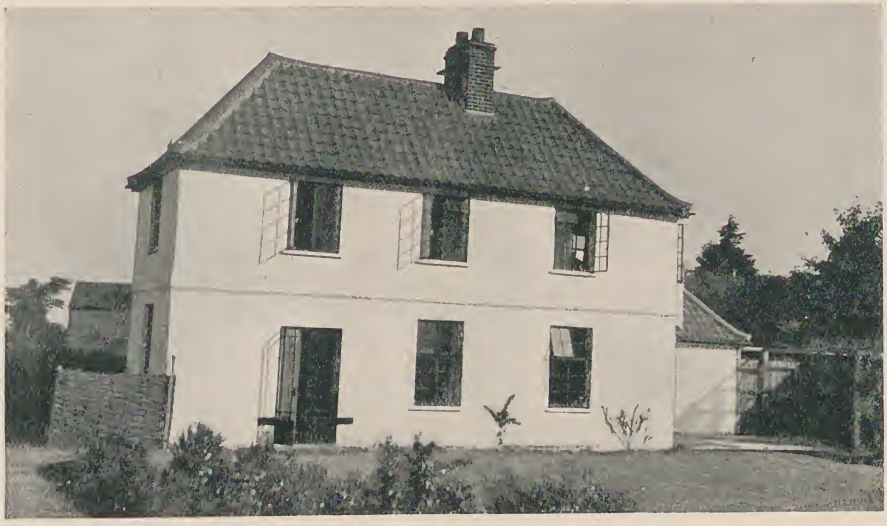


FIG. 115.—SOUTH FRONT.

The larder is in a projection which comprises also a shed, fuel store and earth closet, and above this, on the first floor, is a balcony, opening off the principal bedroom; this balcony serving not only as an outdoor sitting-place, but also as a secluded spot where sun-baths can be taken in complete privacy. There are three bedrooms upstairs, two of them being provided with a fireplace and a good cupboard.

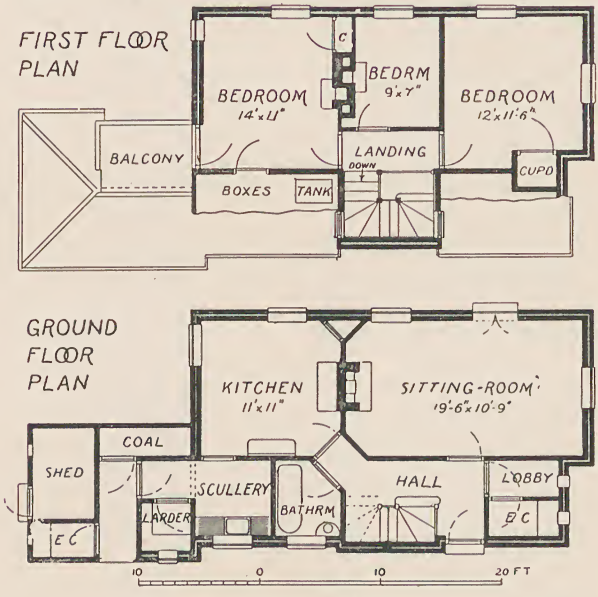



FIG. 116.

In so small a house it might appear open to question whether so much space need be given up to the kitchen and scullery, since a kitchen 11 feet square is all-sufficient to be schemed as a kitchen-scullery, with a sink in it; but this house was planned as a servantless house, and the kitchen is used as a dining-room as well as for the preparation of meals. It was expedient, therefore, to put the sink in a separate scullery, where the plumbing can be economically arranged in conjunction with the bathroom.

The building cost, in 1927, was £590—an astonishingly low figure. Ample supplies of sand and shingle were readily available for concrete work, and local bricks were to hand. The walling is of hollow brickwork, lime-washed, and the roof is tiled.

## HOUSE IN SUSSEX

(FIGS. 117 TO 121)

*F. J. Matthews, Licentiate R.I.B.A., Architect*

BUILT for his own use for week-ends and at holiday times, this little house occupies the site of a derelict cottage. It was in too bad a state of collapse to justify any attempt at repair, so it was pulled down. The removal of the old cottage left the owner with a neglected piece of garden, but possessing the advantage of good surrounding hedges and a number of well-matured fruit trees, which needed but little attention to bring them into proper condition. In addition, great elm and oak trees surrounded the garden, which is about an acre in extent, and these afford a comforting protection from the strong south-westerly winds from the sea.

In the plan of the house the architect has economised in the

FIG. 117.—ENTRANCE FRONT.

FIG. 118.—LIVING-ROOM FIREPLACE.

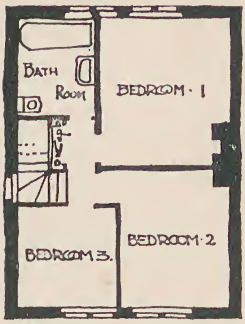
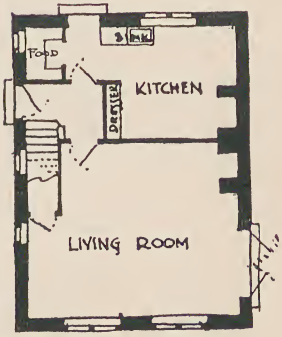



FIG. 119. — GROUND- AND FIRST-FLOOR PLANS.



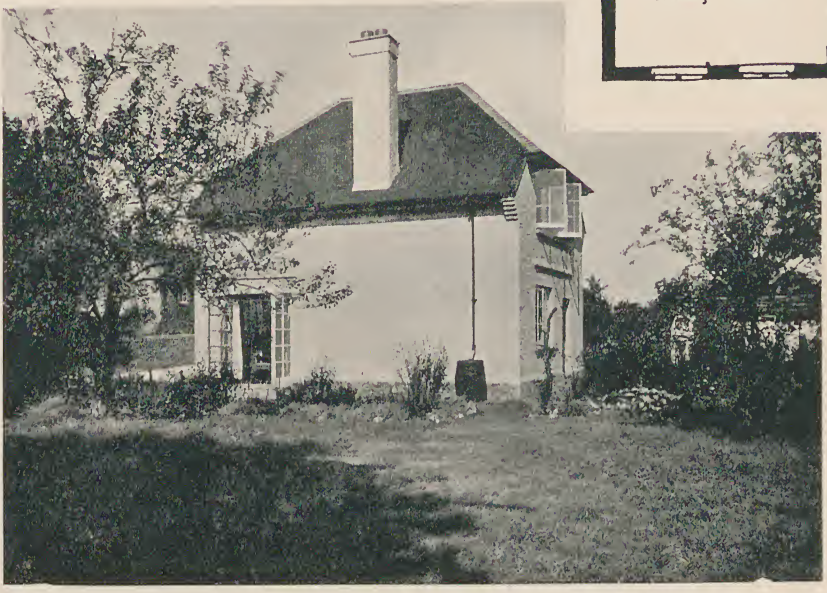



FIG. 120.—GARDEN FRONT.

space allotted to the entrance and staircase, and as a result has been able to allow himself a living-room sufficiently large to accommodate a dining-table at one end and still leave ample space around the fireplace. There is a large French window which opens out from the room on to a south aspect. The only other room on the ground floor is a kitchen equipped with a small range and oil cooking stove. On the first floor are three bedrooms and a bath-room. All the rooms, as befits a week-end cottage, are furnished

FIG. 121.—IN THE LIVING-ROOM.

simply, mostly with old country furniture of a type which is not likely to suffer much from the boisterous games of children filled with the exuberance of a seaside holiday. The walls are finished throughout with a primrose yellow distemper, and the woodwork is stained a peacock blue.

As regards cost, as the foundations of the old cottage, and some of the materials, were used for the new structure, it might be misleading if the actual figure were stated: but it may be said that a similar little house, built entirely afresh to-day, would cost considerably less than £1,000.

## HOUSE AT SEFTON, LIVERPOOL

(FIGS. 122 TO 124)

*Quiggin and Gee, FF.R.I.B.A., Architects*

AS a small house in what may be called modern Georgian style, this is an excellent example. It is direct, straightforward, economical in planning and structure, and shows an arrangement of rooms that meets the requirements of many people. On the ground floor, on one side of the hall, is a sitting-room 20 feet by 11 feet (with a bay window additional), and on the other side is a dining-room 12 feet by 10 feet, with the kitchen-scullery next to it, and a larder opening off the back lobby. This lobby also gives access to a small enclosed yard and to the garage which form an adjunct to the house. The garage is 15 feet by 13 feet, has double doors at the front, and is lighted by a window in the side wall. Upstairs on the first floor are four bedrooms—two at the front and two at the back, with bathroom and w.c. arranged between the latter.

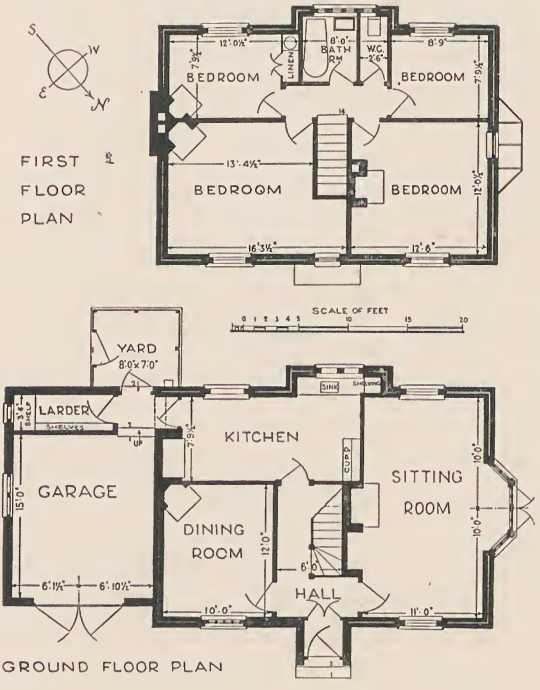



FIG. 122.

The contract price for this house (built in 1928) was £985, inclusive of everything. There are, however, no gas or electric services. The drainage is to a septic tank of a rather unusual and complicated type.

FIG. 123.—ENTRANCE FRONT.

FIG. 124.—FROM THE NORTH.

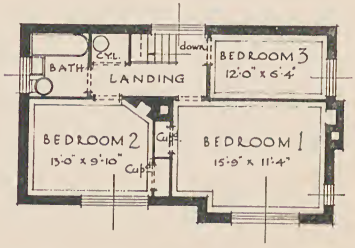
HOUSE AT SEFTON.

## HOUSE AT PRESTBURY, CHESHIRE

(FIGS. 125 TO 127)

*Halliday and Agate, Architects*

THE site of this house is a long narrow one on ground sloping sharply down to the south and commanding a fine view of the Cheshire hills. The house, therefore, has been so placed as to face in this direction, the garden being laid out in terraces. Advantage has been taken of the sloping site to provide a store under




the kitchen and a large cupboard, 5 feet high, accessible from the scullery.

The walling is of old hand-made bricks, the roof is laid with sand-faced tiles, and the windows are Hope's steel casements in wood frames.

The cost was about £860 (in 1928), exclusive of garden work.

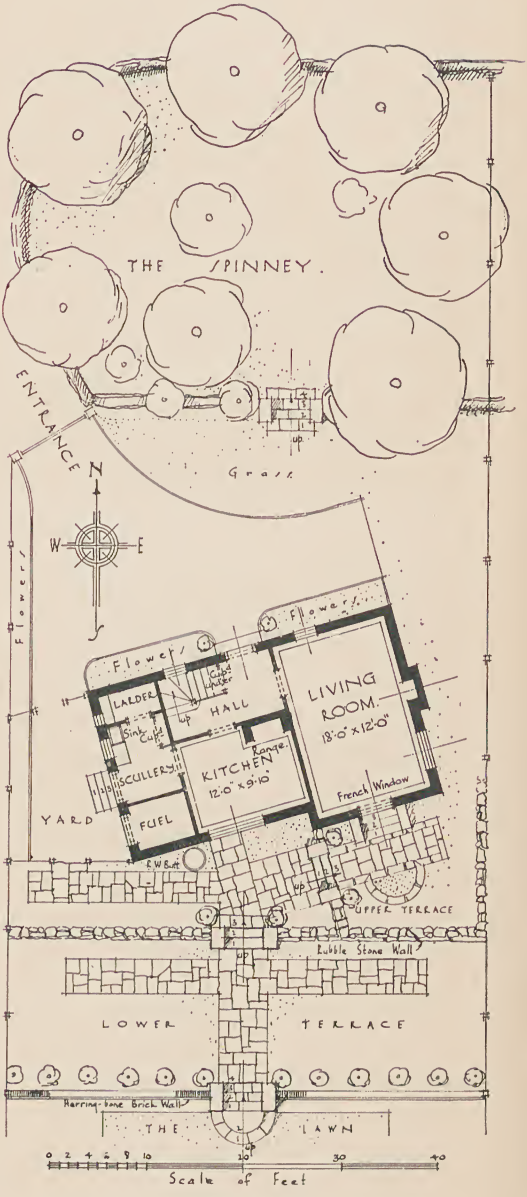



FIG. 125.

FIG. 126.—SOUTH FRONT.

FIG. 127.—ENTRANCE FRONT.

HOUSE AT PRESTBURY.

## COTTAGE IN LANGDALE, WESTMORLAND

(FIGS. 128 AND 129)

*John C. Procter, Architect*

THIS cottage stands on a steep hillside almost overhung by Raven Crag, at the head of Langdale. It is built in the local style, with rubble slate walls nearly 2 feet thick, rough-cast outside, and roofed with Westmorland slates. It fits admirably into its setting and merits high praise on this account.

The living-room is the main feature on the ground floor, being oak-beamed, and having an open oak staircase running up out of it. Its walls are rough-plastered and whitewashed, a really successful effect having been obtained by asking the local builder to imagine he was plastering a cow-byre rather than a living-room. There is no other plaster in the cottage, all the remaining rooms being matchboarded on studding. The bedrooms run right up into the roof, which has purlins and ridge only, and in place of the usual spars is 1¼-inch close-boarding, covered with felt, lathed,

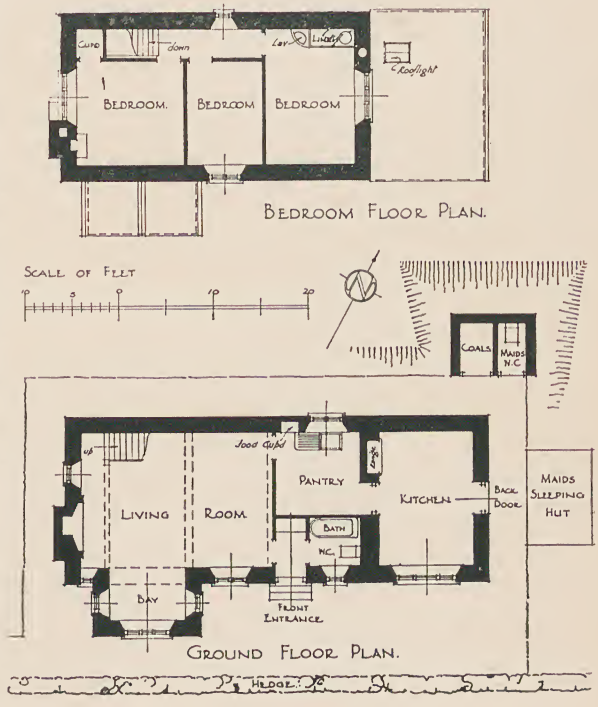



FIG. 128.

FIG. 129.—GENERAL VIEW, SHOWING SETTING.

counter-lathed and then slated. This absence of plaster makes the house an extremely dry one—a great boon in a week-end cottage.

The woodwork in the living-room was wire-brushed, limed and lightly waxed. The bedrooms are painted throughout, all being treated in one colour scheme—white ceilings, lemon yellow walls and Chinese blue skirtings and architraves.

The architect felt that it would be unfair in the Lake District to build in any other way than in the local style and with local materials, but there is no doubt that this added from £200 to £300 to the cost, which was just under £1,000.

# COTTAGE AT FELDEN, HERTS

*Forsyth and Maule, FF.R.I.B.A., Architects*

FIG. 130.—FROM THE SOUTH-EAST.

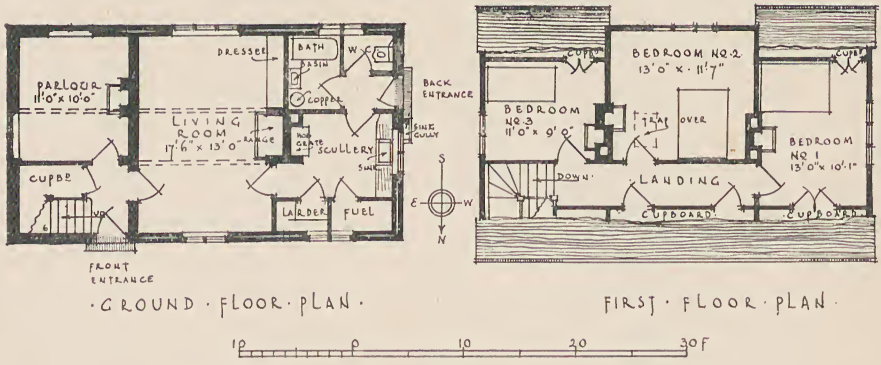



FIG. 131.

BUILT as a gardener's cottage in 1926, the cost was £991, inclusive of sewage disposal by means of cesspool. The site is high, and there was consequent heavy carting. The materials were local multi-coloured bricks, hand-made tiles, elm weatherboarding in the gables, and standard cottage casements in oak frames.

## HOUSE AT OXHEY, NEAR WATFORD, HERTS

(FIGS. 132 AND 133)

*Austin Durst, M.A., F.R.I.B.A., Architect*

THIS is a little square house, very compactly planned. At the entry is a lobby leading into the hall, and from the latter the living-room and the dining-room are directly entered. The former is 18 feet by 11 feet, with its fireplace in the end wall and two windows looking out on to the garden. The dining-room has a corner fireplace. The kitchen is on the other side of the house, with the larder opening off one end of it. Upstairs are three bedrooms, bathroom and w.c.

FIG. 132.—ENTRANCE FRONT.

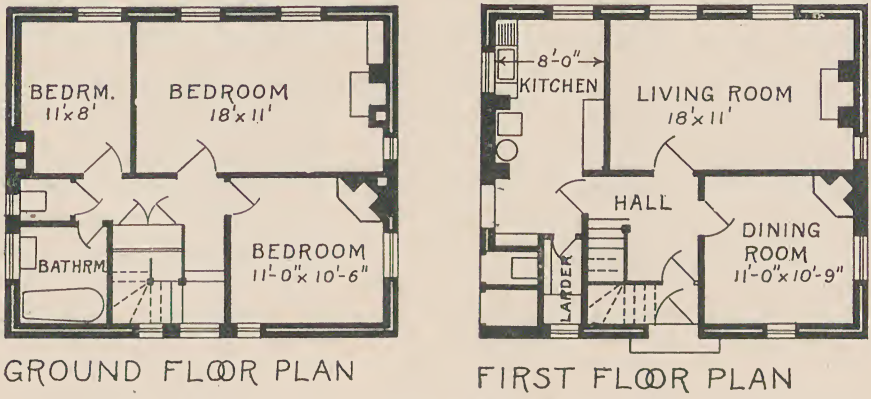



FIG. 133.

The construction is with 11-inch hollow brick walls, the mortar gauged with cement having been struck off flush at the joints and smeared over the face of the brickwork, giving a key to the distemper finish. The roof is covered with English-made pantiles. All joinery details were made to the architect's design, and, with the exception of standard steel casements, no stock patterns were used.

The cost (in 1923) was about £950, inclusive of some fencing and yard paving, electric wiring, gas and water services, drains, etc.

## HOUSE AT CHALFONT ST. PETER, BUCKS

(Figs. 134 and 135)

*Max R. Höfler, A.R.I.B.A., Architect*

On the ground floor a good-sized sitting-room, with dining-room and convenient kitchen quarters, and on the first floor three bedrooms, bathroom and w.c., are compactly contrived in this house. The entry is sheltered by an extension of the roof slope, and a window at the side of the front door provides light to the hall and staircase. The sitting-room is 17 feet by 12 feet 6 inches, with its fireplace on the end wall and windows adjacent facing south and east. At the front is the dining-room, 11 feet square, with a corner fireplace that economises space. The kitchen is well equipped with a gas cooker and also a " Cookan-heat " range, which supplies hot water for domestic use and radiators on the indirect system. Opening off the kitchen is a small scullery, and next to it is the larder.

Of the three bedrooms upstairs, the largest is 17 feet by 12 feet 6 inches. This room comes directly over the sitting-room, and has its fireplace also in the end wall. Between it and the other two bedrooms is the bathroom, all being entered directly from the landing. There is no waste passage space upstairs or down—a most important point in securing a maximum of accommodation within strictly limited dimensions.

The outer walls are of brickwork finished with rough plaster, and the roof is covered with hand-made sand-faced tiles.

The building cost of this house (in 1924) was under £1,000.

FIG. 134.—ENTRANCE FRONT.

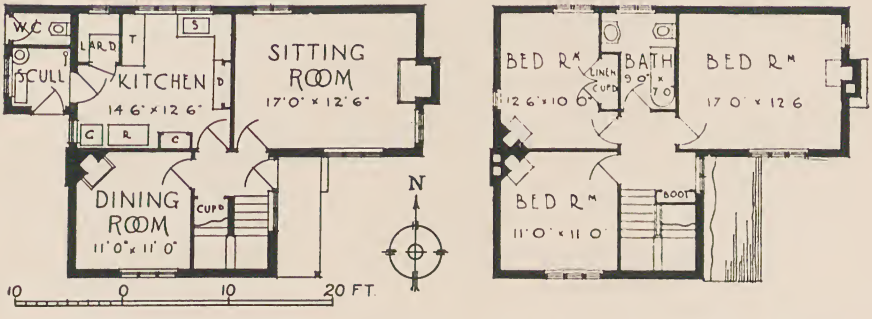



FIG. 135.

## HOUSE AT BARRY, GLAMORGAN

(FIGS. 136 AND 137)

*T. Alwyn Lloyd, F.R.I.B.A., Architect*

THE fact that this house was built in 1927 at a contract price of £875 (including drainage, paths, terracing, fencing and gates) is testimony to what an architect can do. It is often supposed that only the speculating builder can erect a cheap house, but though his house may be cheap, it is often badly planned, and tricked out with bad ornament. From the plans reproduced below, it will be seen that not only is this house very well arranged, but also, for the sum stated, it has an astonishing amount of accommodation.

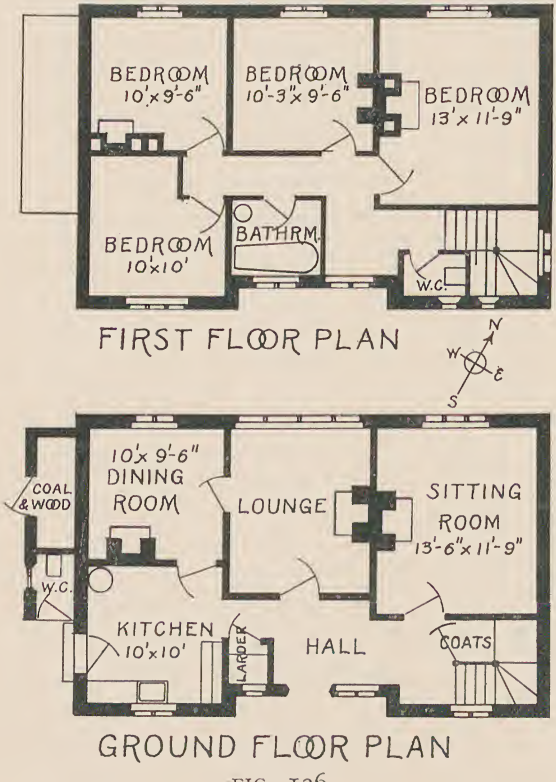



FIG. 136.

The entry is into a good-sized hall, with the stairs rising from one end of it, space for coats being provided in the cupboard at the foot of the stairs. From the hall, the lounge and sitting-room are directly entered, and from the lounge a door also opens into the dining-room. The lounge is 12 feet by 10 feet 3 inches, the sitting-room 13 feet 6 inches by 11 feet 9 inches, and the dining-room 10 feet by 9 feet 6 inches. The lounge

has folding casement doors that open on to a flagged terrace which faces south, overlooking the sea.

Upstairs on the first floor are four bedrooms, the largest being 13 feet 6 inches by 11 feet 9 inches, and the smallest 10 feet by 9 feet 6 inches. Three of the bedrooms have fireplaces, and a lavatory basin is fitted into one corner of the largest room. The bathroom and w.c. are separate, as they should be. No linen

FIG. 137.—FROM THE SOUTH-EAST.

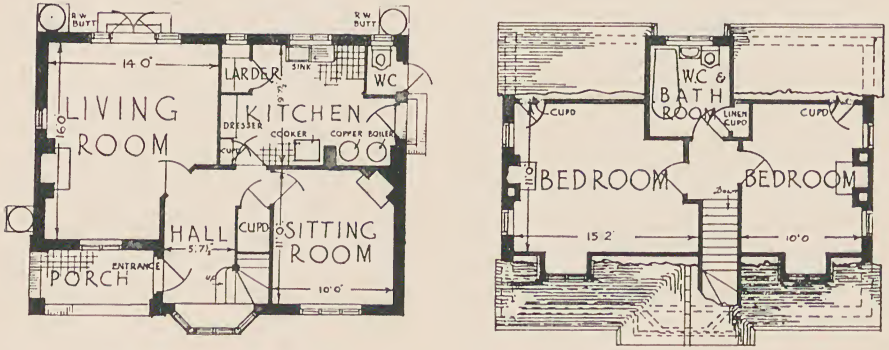
cupboard is shown on the plan, though there is space for one on the landing against the bathroom wall. The staircase has some winders in it. These appear to be unavoidable in the position in which it is placed, but, as everyone knows, winders are always a nuisance on a staircase if it is intended to lay this with a carpet.

The external walls are in 11-inch cavity brickwork, covered with two coats of cement rough-cast. The windows are steel casements in wood frames, and the roof is covered with grey-green Welsh slates.

## BUNGALOW-COTTAGE, GREAT BOOKHAM, SURREY

*Raymond J. Ward, Architect*

FIG. 138.—ENTRANCE FRONT.




GROUND FLOOR PLAN FIRST FLOOR PLAN

FIG. 139.

A LARGE living-room and a hall with oriel window are the principal features on the ground floor, with a well-equipped kitchen. The third room might be used as a sitting-room or additional bedroom. Two bedrooms, bathroom and w.c. are economically arranged within the roof. The walling is of brickwork with 2-inch cavity, the exterior being rendered in cement and sand. The builder's contract price (in 1927) was £802.

# HOUSE AT NORTHOLT, MIDDLESEX

*Patrick Cutbush, A.R.I.B.A., associated with F. E. Green, A.R.I.B.A., Architects*

FIG. 140.—ENTRANCE FRONT.

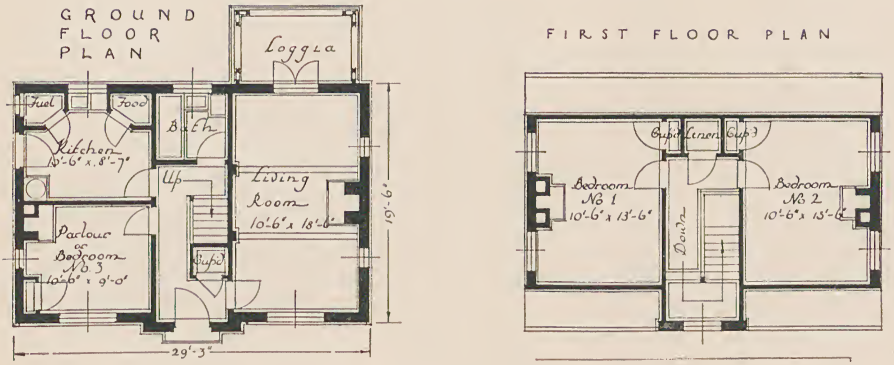


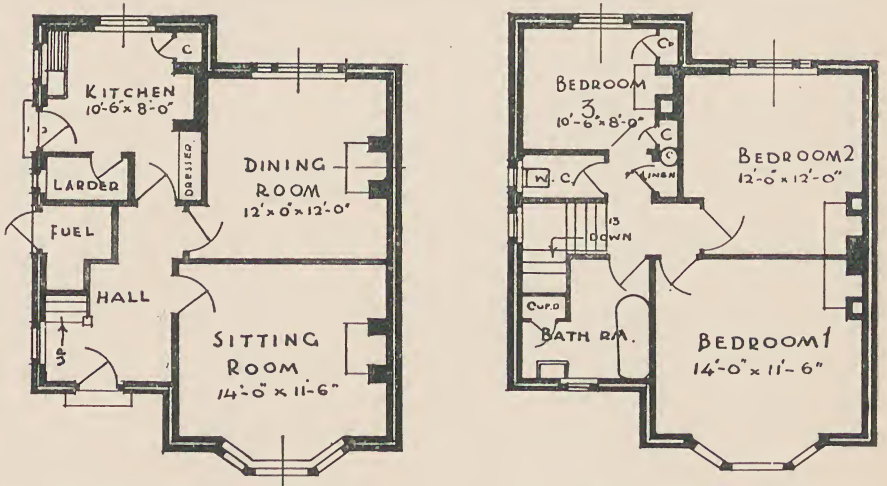

FIG. 141.

THIS house was built in 1926 at a cost of £709. The walling is of 9-inch Fletton brickwork rendered on the outside with cement and sand, and distempered, the internal wall finish being of two-coat plaster. The mansard roof is laid with double " Roman " tiles, and the windows are standard metal casements.

# HOUSE AT WREXHAM, NORTH WALES

*T. Alwyn Lloyd, F.R.I.B.A., Architect*

FIG. 142.—ENTRANCE FRONT.




· GROUND · FLOOR · PLAN · FIRST · FLOOR · PLAN ·

FIG. 143.

BUILT recently for £850, this house occupies an urban site, and is a seemly example of its kind. The walls are of 11-inch brickwork, with multi-coloured rustic facings set with light joints. The roof is laid with green Welsh slates. The double bay on the front is covered with cream-painted weatherboarding, the windows being double-hung sashes.

## EQUIPMENT

THE term "equipment" is meant here to include items that form part of the structure, as well as things that are movable. There are some which involve extra expense, but are certainly well worth it. Glazed tiling around the sink is one instance, and in a bathroom where the bath is free-standing, but set along one wall, a similar extra expenditure on a tiled surround is of permanent value. In passing, it is well to remember that a surface treatment like this, which will last, is a far better economy than a slightly cheaper surface treatment which will not withstand hard wear. Enamelled zinc sheets, for example, are cheaper than glazed tiling in the first instance, but they are certainly not cheaper in the long run.

When expenditure is so strictly limited, as it must be in the case of the £1,000 house, we can only consider things that are relatively inexpensive, and must set aside altogether the idea of introducing features which, though excellent, cannot be afforded. For example, there is no doubt that it is most convenient to have all bedrooms fitted with lavatory basins, with hot and cold water supplies; but such an installation is not possible when the fabric of the house itself costs so large a proportion of the sum available. It may, however, be possible to provide this labour-saving fitment in the principal bedroom; in fact, there are one or two £1,000 houses in this book where such provision has been made.

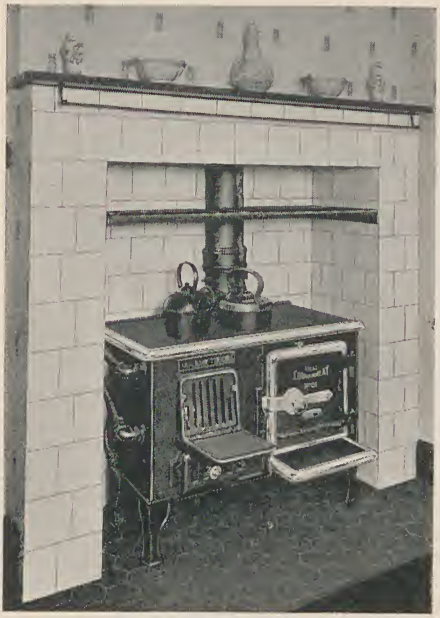
Then there is the question of flooring. In the case of wood floors, we shall be restricted in the majority of cases to deal flooring, which should be tongued and grooved, so as to keep out draughts; but in the living-room the extra expenditure of an oak floor may be considered. Oak, of $\frac{1}{4}$-inch thickness, laid in the form of narrow strips or prepared squares, on a sub-floor of deal boards, will involve an extra cost of about £12 in a room 15 feet by 12 feet. With such a floor, however, a large carpet can be dispensed with, and two fair-sized rugs used instead. It is impossible to give any precise figure in this connection, as carpets and rugs vary so much in price; but if in the room mentioned a seamless carpet 13 feet

by 10 feet cost £16 and two rugs 6 feet by 3 feet cost £4, no extra expenditure would be incurred in providing the oak flooring. This, moreover, would do away with all need of staining, and would provide a lasting surface that needs only occasional polishing with wax.

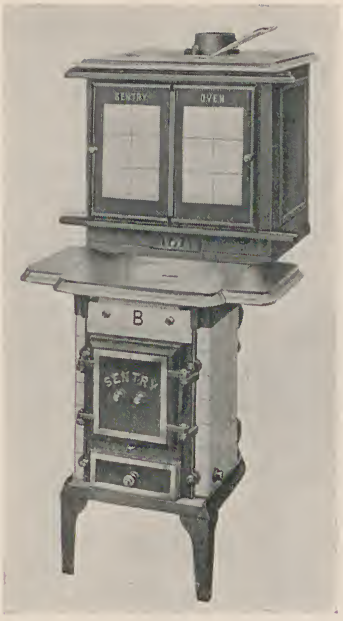
As regards walls, glazed tiling, except in small applications such as those already mentioned in connection with the sink and bath, must be ruled out of count, as such tiling costs about 15s. per square yard, and it is consequently much too expensive to consider for the whole wall treatment of a bathroom or kitchen. It is well worth while to paint the walls of these rooms with a good hard gloss paint, which can be washed when necessary. For the other rooms, distemper is a satisfactory medium. Cream or ivory tone suits any scheme of furnishing, and it is effective to carry the same colour over the ceiling, instead of treating this white.

In the matter of heating, there is a wide choice of appliances. Some are suited to town conditions, others are of special value for country places away from public supplies of gas and electricity. Where the latter are available, cooking by gas, lighting by electricity, and hot water from an independent boiler, is a good arrangement. Do not, however, allow the gas company to fix the cooker in the place which is easiest for themselves, but very likely not the most suitable place in regard to light. A cooking stove is best lighted from the left, because no awkward shadow is then cast by the hand or body of anyone using the cooker. The newest gas cookers are finished with a mottled grey enamel inside and out, and this saves a great deal of trouble in upkeep.

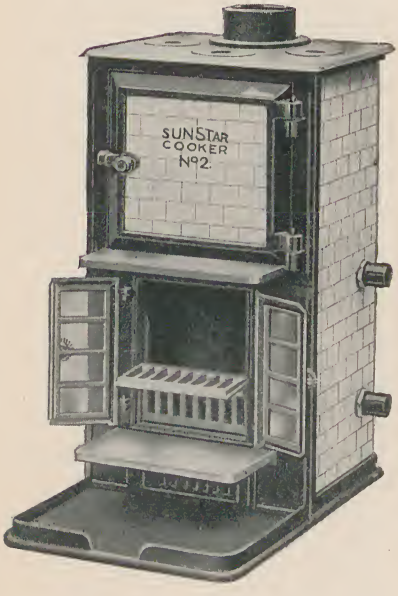
Where a coal range is to be installed, the merit of a combination appliance may be considered. It is possible to have one which provides ample cooking facilities, heats water for baths and general domestic purposes, and also enables a small amount of radiator heating to be obtained. With this appliance the water is heated on the indirect system—that is to say, instead of the hot-water supply tank being directly connected to the range boiler, it has within it a small annular cylinder, which is directly connected to the boiler. The merit of this arrangement in hard-water districts is that it avoids precipitations (*i.e.*, " furring ") on the inside of the boiler and pipes. The water which is directly heated



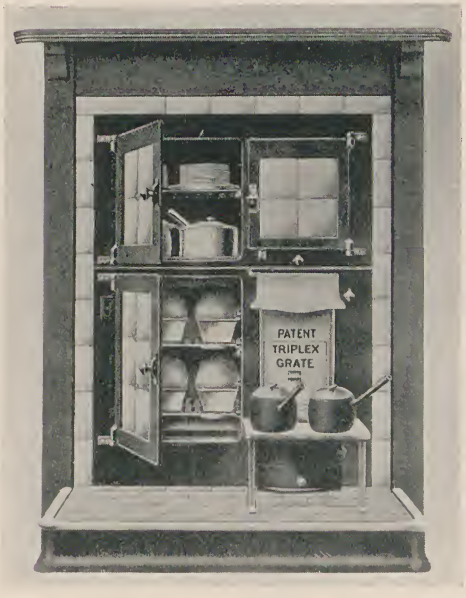
THE "COOKANHEAT."




THE "SENTRY" COMBINATION.




THE "SUNSTAR" BOILER COOKER.

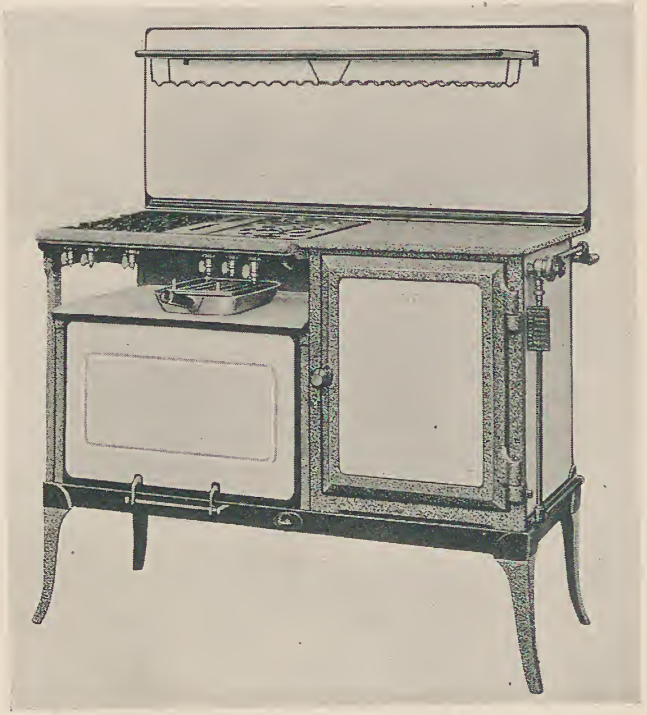



THE "TRIPLEX" GRATE.

SOME COMBINATION APPLIANCES FOR COOKING, HOT-WATER SUPPLY, AND ROOM WARMTH.

FOUR-BURNER "VALOR-PERFECTION" OIL COOKER.

*The burners, with circular wicks, are fed from the oil container on the right. The oven is removable.*

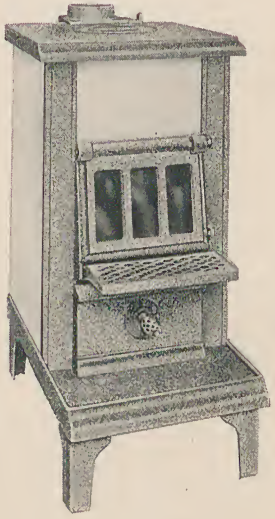


"EUREKA" NEW-WORLD GAS RANGE.

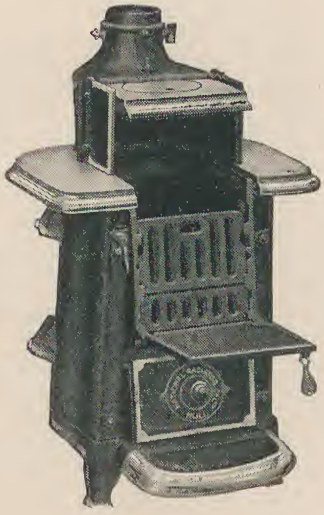
*With raised oven having automatic heat control, hot-plate at convenient height, and warming chamber below. All-enamel finish.*

is that contained only in the annular cylinder and the boiler, and this circulates continuously, imparting its heat to the water in the storage tank.

Another combination appliance, which suits some circumstances admirably, has an open firegrate with an oven at the side of it, a hot closet above, and a boiler at the back. This can be set in a living-room. A variant of somewhat the same idea has a grate which is set in the dividing wall between a living-room and kitchen, there being an open firegrate on the living-room side, an



THE "NAUTILUS."



THE "IDEAL."

TWO INDEPENDENT BOILERS.

oven on the kitchen side (heated by the same fire), and a boiler between. There is also the combination of an independent boiler (for hot-water supply) with an oven set on top, utilising all the waste heat as it passes from the fire to the chimney.

In a living-room an open fire may be regarded as essential, whatever other arrangements for heating may be adopted for other rooms. Nothing is more economical than one of the modern hearth grates, now obtainable with a variety of surrounds. A very good model can be obtained to-day for £6. With some of these grates also a boiler may be incorporated at the back to heat

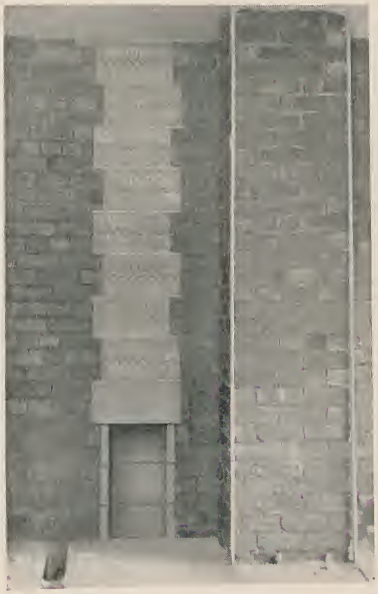
two or three radiators in the hall and bedrooms. Thus, while sitting by the fire on a winter's night you have the satisfaction of knowing that you will not have to go up into chilly bedrooms to sleep.

The provision of open fireplaces in bedrooms is open to question. They are commonly provided, but in ninety-nine cases out of a

A "DEVON" FIRE—SUNK OR OPEN BARLESS TYPE.

hundred no fire is lighted in them from one year's end to the other. The idea apparently is that they are always useful in cases of illness, and that, at any rate, they have a certain value as means of ventilation; but with an empty coal chimney, down-draught often occurs, and it is much better to rely on open windows for ventilation. Everything considered, the best plan is to have gas grates in the bedrooms, and where such are provided an economy in building can be effected. No breast is needed for them, because the necessary flue is only a small one—24 square

inches for a 10-radiant fire. Instead, therefore, of building a brick chimney-breast, and so taking away from the area of the room, concrete flue blocks (17 inches by 9 inches by 4 inches) can be built into the division wall, leaving the surface of this unbroken across the room. The modern gas grate, with "injector - ventilator" canopy, is a thoroughly hygienic appliance, and the fact that it can be turned on at a moment's notice means that it really is used, whereas, because of the trouble involved by the laying



A GAS-FIRE FLUE OF "NAUTILUS" CAST-CONCRETE BLOCKS BUILT INTO THE WALL.

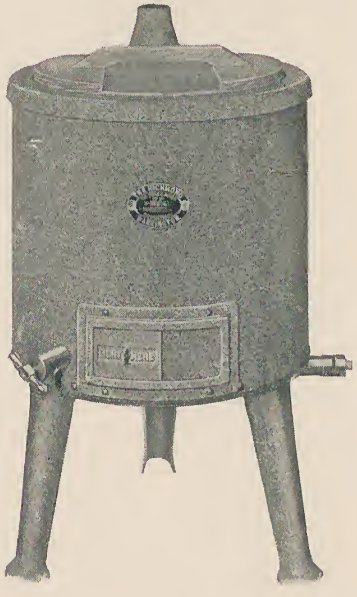
A "RADIATION" GAS FIRE, WITH INJECTOR-VENTILATOR CANOPY.

and clearing away of a coal fire in a bedroom, such a fire is never lighted at all in the majority of cases. The cost of a modern gas fire suitable for a bedroom of average size is about £3 5s., and the running cost will be about 3d. per hour.

Where no public supply of gas or electricity is available, for cooking purposes there is nothing better than a modern oil cooker. This has blue-flame

burners fed from a container at one side, and is not only thoroughly efficient, but also clean in use.

In cases where it is not possible, for one reason or another, to have a hot-water circulating system, a portable boiler should be provided in the scullery. This is the modern equivalent of the old-fashioned bricked-in "copper." Make a point of having a good-sized one—one holding twelve gallons is satisfactory. This amount of water can be brought to the boil with a small amount of firing, and will serve for washing-up and other domestic tasks throughout the day. It can also be used to supply a bath, either by putting this in or adjoining the scullery and having the boiler raised so that the water can flow from it by gravitation into the bath, or by fixing a small semi-rotary pump at the side of the



GAS-HEATED WASH-BOILER (THE "EFFICIENCY").

*With external finish in grey-mottled porcelain enamel.*

SECTIONAL ILLUSTRATION OF "COW BRAND" COAL-FIRED WASH-BOILER.

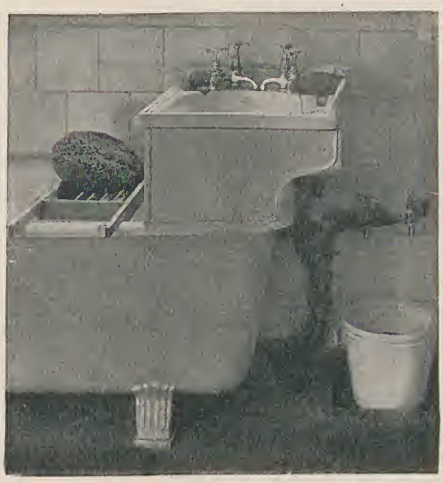
*The encircling flue can be cleaned by turning the pan, the soot being scraped off by the blades provided.*

TWO MODERN WASH-BOILERS.

boiler, to force the water into a bath upstairs. A small pump of this kind costs about £3, and it takes about five minutes to pump eight gallons. This quantity of water at boiling-point, mixed with sixteen gallons of cold water, will give a good hot bath.

Another method of raising water from a scullery copper to an upstairs bathroom is by means of a U-shaped injector tube. This is a removable appliance. With a union connection, it can be placed in the copper and connected to the cold-water supply. The cold water, in passing around the bend of the tube at the bottom of the copper, sucks in the hot water and carries it upstairs. A pressure, however, of not less than 35 lbs. is necessary, and in some country districts this is not available. The appliance, however, is a very inexpensive one, costing only £2 5s., and merits consideration.

THE "WHITEHALL" GEYSER, WITH PORCELAIN-ENAMELLED OUTER CASING.



COMBINATION BATH AND BASIN THAT ECONOMISES SPACE IN A SMALL BATHROOM.

These expedients, so far as the bath is concerned, are, of course, not to be compared for convenience with a proper hot-water supply system from an independent boiler or a modern range of the kind already dealt with.

The geyser has its particular merits, not the least being that it provides the means for a really hot bath at any time of the day or night, and this in a case of sudden illness may mean the saving of a person's life.

A few points of detail in regard to equipment may be noted. In modern houses it is usual to provide a good deep porcelain sink in the scullery, but quite commonly the sink is badly placed. Generally it is set too low. A good height is 30 inches from the bottom of the sink to the floor. Wherever possible, it should be set under a window, not more than 9 inches or a foot below the sill of the window—for the reason that no shadow will then cast across the sink. Washing-up demands a good light. Another common mistake is to provide only one draining-board. There should always be two draining-boards, and these should be set

A SINK SET AGAINS THE WALL BETWEEN TWO WINDOWS, WITH PLATE RACK ABOVE AND DRAINING BOARDS AND SHELVES ON EITHER SIDE.

at a good angle. Avoid also the placing of a sink next to the back door. This is often seen, especially in the speculative builder's house. It is a most uncomfortable position for anyone standing at the sink, because of draughts.

And mention must be made of cupboards. A good cupboard is invaluable in a bedroom, but it should not be too deep. Deep cupboards are a snare. It is much better to have a wide cupboard that is comparatively shallow. A cupboard 20 inches deep will enable coat-hangers to be set side by side and easily get-at-able. Linen cupboards should have slatted shelves, so as to allow air to circulate, and they should be in a good light. If it is not possible to light them from a window, an electric light should be fitted inside the cupboard.

THE "LOFT LADDER" FOR UTILISING THE ROOF SPACE.
*On the left, being drawn down; on the right, in position.*

If the roof space is to be used for storage, consideration should be given to the provision of a modern step-ladder which is raised into the roof, with the trap-door attached to the end of it. When needed, it can either be pulled down with a rod or wound down by simple gear. At other times it is out of sight. This is a far better arrangement than the familiar use of a pair of steps from the top of which, precariously balanced, you have to spring up into the void. The cold-water cistern is up here. See that it has a wooden lid, and remember the possibilities of frost. A jacket of felt or other non-conducting material can be made for it, or even some sacking and newspapers may serve as a makeshift covering—sufficient to counteract freezing and all the trouble

and damage that may involve. There is a special non-conducting material made in long strips for winding around pipes, or rope of twisted straw can be used.

[*G. Alan Fortescue, A.R.I.B.A., Architect*

A SERVICE FITMENT, KITCHEN SIDE.

*The centre portion is a service hatch, covered by a flap on the dining-room side. Above is a cupboard, below are drawers—both accessible from either side. Right and left are store cupboards, and at the top are other cupboards (with sliding doors) for articles only occasionally required.*

Have a stopcock on the main cold-water supply in the house, and also on the hot-water circulating system. This is a great convenience when tap washers have to be replaced, and in the event of any leakage in the circulating pipes through frost or other causes. Bathroom and scullery taps should be nickel-plated, or, better still, chromium-plated. The latter finish costs more, but does away with polishing, as the chromium-plating keeps bright under all conditions. The extra cost is about 3s. per tap, as compared with nickel-plating.

If electric light is to be installed, have a power circuit laid at the same time, and arrange for plug points upstairs and down to which a vacuum cleaner can be connected.

The provision of a service hatch will save a great deal of time in the serving and clearing away of meals. A very good type is one in the form of a cupboard built into the dividing wall between dining-room and kitchen, with a drop-down panel on the dining-room side, drawers below to push

DETAIL OF A STEEL CASEMENT WINDOW SHOWING CLEANING HINGE AND TILED SILL.

*The hinge allows space for the arm, so that the outside of the window can be cleaned from inside the room.*

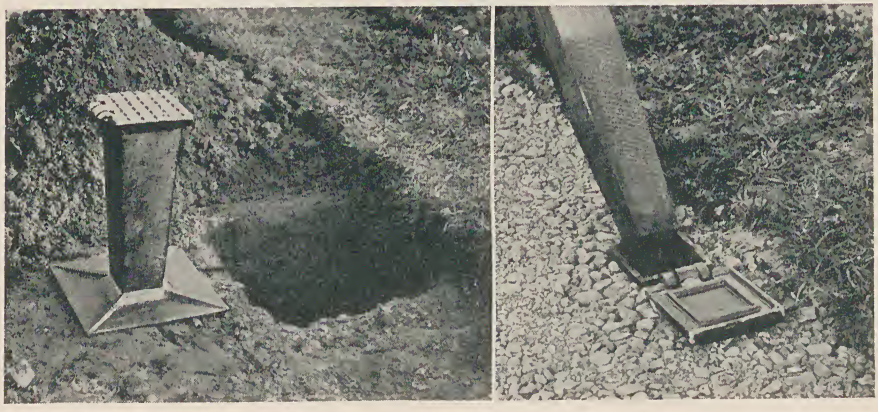
through from either side, and a cupboard above for glass and china —this cupboard being glazed on the kitchen side and having a solid door to the dining-room.

In scheming the accommodation of a house it is most necessary to remember the existence of a number of items of equipment which are very awkward to store unless proper provision is made for them. There are the things connected with home laundry work—the mangle, galvanised iron baths, perhaps a washing machine. Garden tools need proper storage, and very likely one or two bicycles have to be housed; in fact, it is astonishing how many things there are about a house, not required for every-day use, that need to be kept handily.

In these days a good deal of laundry is " sent out," but often it is done at home, with the exception of such articles as sheets, table linen, collars, etc. In view of this, the old-fashioned wash-house may well be resuscitated in modern form. A small structure separate from the house, yet (preferably) accessible under cover, can be provided. It will best be built of brick, with a good-sized

window in one wall. The floor should be formed of concrete or tiles, laid to a fall and having a channel all round next to the walls, so that any spilled water can run away to a gulley. Under the window there should be twin tubs, for washing and rinsing, and in one corner a wash-boiler (one of modern type, with a non-drip steam escape, is to be recommended). A mangle is, of course, an essential item of equipment, and a ceiling airer should be suspended from the roof. Certainly a most invaluable item of equipment is a washing machine. It can be operated by hand or electrically driven. A good hand-power machine with reciprocating dolly can be bought for £8, with rubber wringer attached. An electrically driven machine of the same kind will cost about £30. Its merit, of course, is that it does all the work, but even the other machine will wash the clothes in about one-third of the time that washing by hand takes. In this outside wash-house space can also be found for a work-bench, which will prove a boon to the man of the house.

There are many other points about the equipment of a house which have to be considered in turn, but they are too numerous to discuss here. They will be found fully dealt with in three books in the *Country Life* series. One is "The House You Want" (2s. 6d.), the second is "How to Heat Your House" (2s. 6d.), and the third is "The Servantless House" (6s.).



A CLOTHES-PROP SOCKET.

*Sunk into the ground, it has a flap to cover the opening when the prop is removed.*

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Willcocks and Greenaway, 11, Friar Street, Reading. (*Pages* 36, 58 *and* 68.)
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Christopher J. Woodbridge, "Fiesole," Long Lane, Hillingdon, Middlesex. (*Page* 56.)

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| Loft ladder: Loft Ladders, Ltd., Broadway Works, Bromley, Kent | 139 |
| Chromium-plated taps: Doulton and Co., Lambeth, London, S.E. | 140 |
| Washing machines: Beatty Bros., Ltd., 55, Holborn Viaduct, London, E.C. 1. | 142 |


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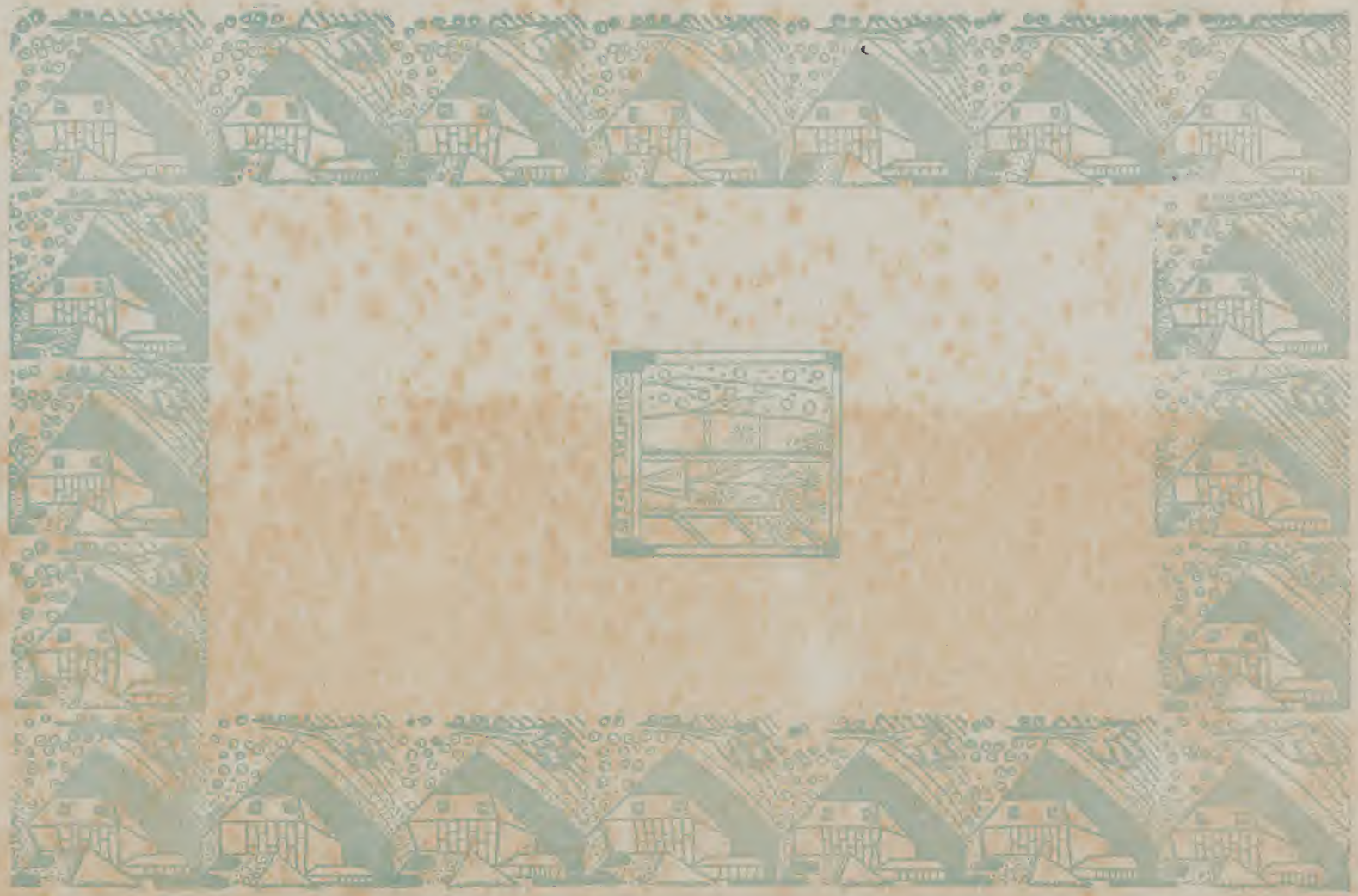

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